



Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070

October 12, 2018

Carol Sutkus
State of California
Environmental Protection Agency
Air Resources Board
P. O. Box 2815
Sacramento, California 95812

Project Title: Amendment of AVAQMD Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines*

Dear Ms. Sutkus:

The Antelope Valley Air Quality Management District (AVAQMD) requests that the California Air Resources Board submit amended Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines*, to the United States Environmental Protection Agency (USEPA) for inclusion in the State Implementation Plan (SIP).

The amendment of Rule 1110.2 is necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs, major sources of ozone precursors and meet the requirements of the ICE RACT/BARCT Determination.

The District requests CARB submit to USEPA the proposed amendment of Rule 1110.2 for inclusion in the SIP. The District also requests removal of all prior versions that may be applicable.

If you have any questions regarding this submittal, please contact me at (661) 723-8070, extension 22, or Barbara Lods at extension 23. Please note that all documents required for a complete submission were sent electronically on 10/12/2018.

Sincerely,

A handwritten signature in black ink, appearing to read "Bret Banks". The signature is stylized with loops and a long horizontal stroke.

Bret Banks
Executive Director

BSB/bjl

CARB SIP Submittal Request AV Rule 1110.2 09182018

CALIFORNIA AIR RESOURCES BOARD

SIP COMPLETENESS CHECKLIST
(Electronic Format)

*** TO BE COMPLETED BY DISTRICT AND RETURNED TO ARB ***

All rules submitted to the EPA as State Implementation Plan (SIP) revisions must be supported by certain information and documentation for the rule packages to be deemed complete for review by the EPA. Rules will not be evaluated for approvability by the EPA unless the submittal packages are complete. To assist you in determining that all necessary materials are included in rules packages sent to the ARB for submittal to the EPA, please fill out the following form and include it with the rule package you send ARB. See the ARB's Guidelines on the Implementation of the 40 CFR 51, Appendix V, for a more detailed explanation than is provided here. Adopted rules and rule amendments should be checked against U.S. EPA's Guidance Document for Correcting Common VOC & Other Rule Deficiencies (Little Blue Book, August 21, 2001) to ensure that they contain no elements which will result in disapproval by EPA.

District: Antelope Valley Air Quality Management District

Rule No: 1110.2

Rule Title: Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

Date Adopted or Amended: 09/18/2018

ADMINISTRATIVE MATERIALS

Note: All documents should be in electronic format. Items that have signatures, initials, or stamps may be scanned.

<u>Attached</u>	<u>Not Attached</u>	<u>N/A</u>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>COMPLETE COPY OF THE RULE:</u> Provide an unmarked copy of the entire rule as adopted or amended by your District Board. (See <i>File AV1110-2_012103.doc</i>)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>UNDERLINE AND STRIKEOUT COPY OF THE RULE:</u> If an amended rule, provide a complete copy of the rule indicating in underline and strikeout format all language which has been added, deleted, or changed since the rule was last adopted or amended. (See <i>Staff Report Appendix "A", File AV1110-2 Staff Rpt2.doc</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>COMPLETE COPY OF THE REFERENCED RULE(S):</u> For any rule which includes language specifically referencing another rule, a copy of that other rule must also be submitted, unless it has already been submitted to EPA as part of a previous SIP submittal. (<i>No other Rules Referenced</i>)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>PUBLIC NOTICE EVIDENCE:</u> Include a copy of the local newspaper clipping certification(s), stating the date of publication, which must be at least 30 days before the hearing. As an alternative, include a copy of the actual published notice of the public hearing as it appeared in the local newspaper(s). In this case, however, enough of the newspaper page must be included to show the date of publication. The notice must specifically identify by title and number each rule adopted or amended. (See <i>Staff Report Section V.A.1.g.; V.A.2.c.d.; and Appendix "B", File AV1110-2 Staff Rpt2.doc</i>)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>RESOLUTION/MINUTE ORDER:</u> Provide the Board Clerk certified resolution or minute order. This document must include certification that the hearing was held in accordance with the information in the public notice. It must also list the rules that were adopted or amended, the date of the public hearing, and a statement of compliance with California Health and Safety Code Sections 40725-40728 (Administrative Procedures Act). (See <i>File AV1110-2 reso fnl.doc</i>)

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>PUBLIC COMMENTS AND RESPONSES:</u> Submit copies of written public comments made during the notice period and at the public hearing. Also submit any written responses prepared by the District staff or presented to the District Board at the public hearing. A summary of the public comments and responses is adequate. If there were no comments made during the notice period or at the hearing, please indicate N/A to the left. <i>(See Staff Report Appendix "C", File AV1110-2 Staff Rpt2.doc; and Appendix "F", File AV1110-2 Apx F.doc)</i> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>RULE EVALUATION FORM:</u> See instructions for completing the Rule Evaluation Form and the accompanying sample form. <i>(See File AV1110-2 evalform.doc)</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>NON-EPA TEST METHODS:</u> Attach all test methods that are referenced in your rule that do not appear in 40 CFR 51, 60, 61, 63, or have not been previously submitted to EPA. EPA methods used in other media such as SW846 for solid waste are not automatically approved for air pollution applications. Submittal of test methods that are not EPA-approved should include the information and follow the procedure described in Region 9's "Test Method Review & Evaluation Process." |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>MODELING SUPPORT:</u> Provide if appropriate. In general, modeling support is not required for VOC and NOx rules to determine their impacts on ozone levels. Modeling is required where a rule is a relaxation that affects large sources (≥ 100 TPY) in an attainment area for SO ₂ , directly emitted PM ₁₀ , CO, or NO _x (for NO ₂ purposes). In cases where EPA is concerned with the impact on air quality of rule revisions which relax limits or cause a shift in emission patterns in a nonattainment area, a reference back to the approved SIP will be sufficient provided the approved SIP accounts for the relaxation and provided the approved SIP used the current EPA modeling guidelines. If current EPA modeling guidelines were not used, then new modeling may be required. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>ECONOMIC AND TECHNICAL JUSTIFICATION FOR DEVIATIONS FROM EPA POLICIES:</u> The District staff report or other information included with the submittal should discuss all potential relaxations or deviations from RACT, RACM, BACT, BACM, enforceability, attainment, RFP, or other relevant EPA requirements. This includes, for example, demonstrating that exemptions or emission limits less stringent than the presumptive RACT (e.g., a CTG) meet EPA's 5 percent policy, and demonstrating that all source categories exempted from a RACM/BACM rule are de minimus according to EPA's RACM/BACM policy. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>ADDITIONAL MATERIALS:</u> Provide District staff reports and any other supporting information concerning development of the rule or rule changes. This information should explain the basis for all limits and thresholds contained in the rule. <i>(See Files AV1110-2 Min fnl; AV1110-2 Set date; AV1110-2 NOE; AV1110-2 Staff Rpt2)</i> |

APCD/AQMD RULE EVALUATION FORM -- Page 1
(Electronic Format)**I. GENERAL INFORMATION**District: Antelope Valley Air Quality Management DistrictRule No(s): 1110.2 Date adopted/Amended/Rescinded: Amended 09/18/18Rule Title(s): Emissions from Stationary, Non-Road and Portable Internal Combustion EnginesDate Submitted to ARB: 10/12/2018If an Amended Rule, Date Last Amended (or Adopted): Amended 01/21/03Is the Rule Intended to be Sent to the U.S. EPA as a SIP Revision? ☒ Yes ☐ No (If No, do not complete remainder of form)District Contact: Barbara Lods Phone Number: (661) 723-8070 x23 E-mail Address: blods@avaqmd.ca.govNarrative Summary of New Rule or Rule Changes: ☐ New Rule ☒ Amended Rule

The amendments to Rule 1110.2 are necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs, national rules and guidance, CARB ICE RACT/BARCT Determination and the rules of other California air districts with similar nonattainment designations and for major sources of ozone precursors.

Pollutant(s) Regulated by the Rule (Check): ☒ ROG ☒ (NOx) ☐ SO2
☒ (CO) ☐ PM ☐ TAC (name): _____**II. EFFECT ON EMISSIONS**

Complete this section ONLY for rules that, when implemented, will result in quantifiable changes in emissions. Attach reference(s) for emission factor(s) and other information. Attach calculation sheet showing how the emission information provided below was determined.

Net Effect on Emissions: ☐ Increase ☐ Decrease ☒ N/AEmission Reduction Commitment in SIP for this Source Category: N/AInventory Year Used to Calculate Changes in Emissions: N/A Area Affected: N/A

Future Year Control Profile Estimate (Provide information on as many years as possible):

N/A

APCD/AQMD RULE EVALUATION FORM -- Page 2
(Electronic Format)

Baseline Inventory in the SIP for the Control Measure: N/A

Emissions Reduction Commitment in the SIP for the Control Measure: N/A

Revised Baseline Inventory (if any): N/A

Revised Emission Reduction Estimate (if developed): N/A

Note that the district's input to the Rule Evaluation Form will not be used as input to the ARB's emission forecasting and planning.

III. SOURCES/ATTAINMENT STATUS

District is: ☐ Attainment ☒ Nonattainment ☐ Split

Approximate Total Number of Small (<100 TPY) Sources Affected by this Amendment: Apx 10 Facilities (apx 20 non-Emergency ICES)

Percent in Nonattainment Area: 100%

Number of Large (\geq 100 TPY) Sources Controlled: 3 Percent in Nonattainment Area: 100%

Name(s) and Location(s) (city and county) of Large (\geq 100 TPY) Sources Controlled by Rule (Attach additional sheets as necessary): Lancaster, Palmdale, Mojave Desert Air Basin portion of L.A. County

IV. EMISSION REDUCTION TECHNOLOGY

Does the Rule Include Emission Limits that are Continuous? ☒ Yes ☐ No

If Yes, Those Limits are in Section(s) C of the Rule.

Other Methods in the Rule for Achieving Emission Reductions are: N/A

V. OTHER REQUIREMENTS

The Rule Contains:

Emission Limits in Section(s): (C) - Requirements Work Practice Standards in Section(s): (D) - Monitoring, (E) - Equipment Requirements and (F) Compliance Test Requirements and Methods

Recordkeeping Requirements in Section(s): (G) - Record Keeping and Reporting Reporting Requirements in Section(s): (G)-Record Keeping and Reporting

APCD/AQMD RULE EVALUATION FORM -- Page 3
(Electronic Format)

VI. IMPACT ON AIR QUALITY PLAN

☒ No Impact ☐ Impacts RFP ☐ Impacts attainment

Discussion: There are no potential adverse environmental impacts of compliance with the adoption of Rule 1110.2. Rule 1110.2 will impose limits on seasonal operations and remove the agricultural exemption. Amendments are designed to conform the provisions of the rule to the provisions of the ICE RACT/BARCT determination.

AGENDA ITEM #7

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT.

**MINUTES OF THE GOVERNING BOARD
OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT
LANCASTER, CALIFORNIA**

AGENDA ITEM #7

PAGE 2

The Antelope Valley is subject to the RACT rule requirements because it has been designated nonattainment for Ozone and classified Severe-17. Therefore, USEPA could not approve a SIP revision which was not consistent with the most recent ICE RACT/BARCT Determination even though the ICE RACT/BARCT Determination had been adopted subsequent to the adoption of the Rule.

The AVAQMD subsequently amended Rule 1110.2 on May 15, 2001 and January 21, 2004. USEPA proposed a Limited Approval/Limited Disapproval (69 FR 211482) of the revision. The LA/LD also included a request for justification of the seasonal exemption for engines used for snow manufacturing and ski lift operation, request for correction of several citations and increasing record retention from 2 years to 5 years. Specifically USEPA was concerned that the agricultural exemption, and possibly the snow/ski exemption disqualified Rule 1110.2 from meeting RACT.

A Notice of Exemption, Categorical Exemption (Class 8; 14 Cal. Code Reg. §15308) will be prepared by the AVAQMD for the amendment of Rule 1110.2 pursuant to the requirements of CEQA.

REASON FOR RECOMMENDATION: Health & Safety Code §§40702 and 40703 require the Governing Board to hold a public hearing before adopting rules and regulations. Also, 42 U.S.C. §7410(l) (FCAA §110(l)) requires that all SIP revisions be adopted after public notice and hearing.

REVIEW BY OTHERS: This item was reviewed as to legal form by Karen Nowak, District Counsel and by Bret Banks, Executive Director on or before September 4, 2018.

FINANCIAL DATA: No increase in appropriation is anticipated.

PRESENTER: Bret Banks, Executive Director/APCO

**MINUTES OF THE GOVERNING BOARD
OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT
LANCASTER, CALIFORNIA**

AGENDA ITEM #7

PAGE 3

ACTION OF THE GOVERNING BOARD

APPROVED

Upon motion by **RON HAWKINS**, seconded by **STEVEN HOFBAUER**, as approved by the following vote:

Ayes **7** **CRIST, BISHOP, CHELETTE, HARRIS, HOFBAUER, MALHI, HAWKINS**

Noes:

Absent:

Abstain:

DEANNA HERNANDEZ, SENIOR EXECUTIVE ANALYST

BY 

Dated: September 18, 2018

Ref. Resolution 18-05, "A RESOLUTION OF THE GOVERNING BOARD OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT MAKING FINDINGS, CERTIFYING THE NOTICE OF EXEMPTION, AMENDING RULE 1110.2-EMISSIONS FROM STATIONARY, NON-ROAD AND PORTABLE INTERNAL COMBUSTION ENGINES AND DIRECTING STAFF ACTIONS."

RESOLUTION 18-05

A RESOLUTION OF THE GOVERNING BOARD OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT MAKING FINDINGS, CERTIFYING THE NOTICE OF EXEMPTION, AMENDING RULE 1110.2-EMISSIONS FROM STATIONARY, NON-ROAD AND PORTABLE INTERNAL COMBUSTION ENGINES AND DIRECTING STAFF ACTIONS.

On, September 18, 2018, on motion by Member RON HAWKINS, seconded by Member STEVEN HOFBAUER, and carried, the following resolution is adopted:

WHEREAS, the Antelope Valley Air Quality Management District (AVAQMD) has authority pursuant to California Health and Safety Code (H&S Code) §§40702, 40725-40728 to adopt, amend or repeal rules and regulations; and

WHEREAS, on May 15, 2001 the Antelope Valley Air Pollution Control District (AVAPCD), the predecessor agency to the Antelope Valley Air Quality Management District (AVAQMD) adopted amendments to Rule 1110.2; and

WHEREAS, since Rule 1110.2 was inherited by the AVAPCD from the South Coast Air Quality Management District (SCAQMD) it contained provisions which did not apply within the District as well as implementation dates which had expired and other provisions which were not consistent with State and Federal requirements; and

WHEREAS, the May 15, 2002 amendments corrected most of these problems and conformed the rule to AVAPCD rule format; and

WHEREAS, in November 2001, the California Air Resources Board (CARB) adopted a new Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion Engines (ICE RACT/BARCT Determination); and

WHEREAS, CARB submitted the May 15, 2002 version of the rule to the United States Environmental Protection Agency (USEPA) as a revision to the State Implementation Plan (SIP) on December 14, 2001; and

WHEREAS, on August 7, 2002 USEPA expressed concern that certain provisions of Rule 1110.2 as adopted on May 15, 2001 were not completely consistent with the November ICE RACT/BARCT Determination; and

//

RESOLUTION 18-05

1 **WHEREAS**, the Federal Clean Air Act requires areas designated nonattainment for ozone and
2 classified moderate and above to adopt and maintain reasonably available control technology (RACT)
3 rules for major stationary sources of volatile organic compounds (VOCs) and Oxides of Nitrogen (NO_x);
4 and

5 **WHEREAS**, the Antelope Valley is subject to the RACT rule requirements because it has been
6 designated nonattainment for Ozone and classified Severe-17; and

7 **WHEREAS**, therefore, USEPA could not approve a SIP revision which was not consistent with
8 the most recent ICE RACT/BARCT Determination even though the ICE RACT/BARCT Determination
9 had been adopted subsequent to the adoption of the Rule; and

10 **WHEREAS**, the AVAQMD subsequently amended Rule 1110.2 on May 15, 2001 and January
11 21, 2004; and

12 **WHEREAS**, USEPA proposed a Limited Approval/Limited Disapproval (69 FR 211482) of the
13 revision; and

14 **WHEREAS**, the LA/LD also included a request for justification of the seasonal exemption for
15 engines used for snow manufacturing and ski lift operation, request for correction of several citations and
16 increasing record retention from 2 years to 5 years; and

17 **WHEREAS**, specifically USEPA was concerned that the agricultural exemption, and possibly the
18 snow/ski exemption disqualified Rule 1110.2 from meeting RACT; and

19 **WHEREAS**, this item was noticed for the September 18, 2018 Governing Board meeting, and

20 **WHEREAS** the District has the authority pursuant to California Health and Safety Code (H&S
21 Code) §40702 to adopt, amend or repeal rules and regulations; and

22 **WHEREAS**, the proposed amendments to Rule 1110.2 are clear in that they are written so that the
23 persons subject to the rule can easily understand the meaning; and

24 **WHEREAS**, the proposed amendments to Rule 1110.2 are in harmony with, and not in conflict
25 with or contradictory to any state law or regulation, federal law or regulation, or court decisions; and

26 **WHEREAS**, the proposed rule is consistent with current federal RACT as determined by
27 comments from USEPA, other related national rules and guidance and the rules of other California air
28 districts with nonattainment designations; and

RESOLUTION 18-05

1 **WHEREAS**, the proposed amendments do not impose the same requirements as any existing state
2 or federal regulation and a rule is necessary to implement the applicable provisions of these documents;
3 and

4 **WHEREAS**, a public hearing has been properly noticed and conducted, pursuant to H&S Code
5 §40725, concerning the proposed amendments to Rule 1110.2; and

6 **WHEREAS**, a Notice of Exemption, a Categorical Exemption (Class 8, 14 CCR §15308) for the
7 proposed amendments to Rule 1110.2, completed in compliance with the California Environmental
8 Quality Act (CEQA), has been presented to the AVAQMD Board; each member having reviewed,
9 considered and approved the information contained therein prior to acting on the proposed amendments to
10 Rule 1110.2, and the AVAQMD Board having determined that the proposed amendments will not have
11 any potential for resulting in any adverse impact upon the environment; and

12 **WHEREAS**, the Board has considered the evidence presented at the public hearing; and

13 **NOW, THEREFORE, BE IT RESOLVED**, that the Governing Board of the AVAQMD finds
14 that the proposed amendments to Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable*
15 *Internal Combustion Engines* are necessary, authorized, clear, consistent, non-duplicative and properly
16 referenced; and

17 **BE IT FURTHER RESOLVED**, that the Governing Board of the AVAQMD hereby makes a
18 finding that the Class 8 Categorical Exemption (14 CCR §15308) applies and certifies the Notice of
19 Exemption for the proposed amendments to Rule 1110.2; and

20 **BE IT FURTHER RESOLVED**, that the Board of the AVAQMD does hereby adopt, pursuant to
21 the authority granted by law, the proposed amendments to Rule 1110.2, as set forth in the attachments to
22 this resolution and incorporated herein by this reference; and

23 **BE IT FURTHER RESOLVED**, that this resolution shall take effect immediately upon adoption,
24 that the Senior Executive Analyst is directed to file the Notice of Exemption in compliance with the
25 provisions of CEQA.

26 **PASSED, APPROVED AND ADOPTED** by the Governing Board of the Antelope Valley Air Quality
27 Management District by the following vote:

28 //

RESOLUTION 18-05

AYES: 7 MEMBER: CRIST, BISHOP, CHELETTE, HARRIS, HOFBAUER, MALHI,
HAWKINS

NOES: MEMBER:

ABSENT: MEMBER:

ABSTAIN: MEMBER:

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

SS:

I, Deanna Hernandez, Senior Executive Analyst of the Antelope Valley Air Quality Management District, hereby certify the foregoing to be a full, true and correct copy of the record of the action as the same appears in the Official Minutes of said Governing Board at its meeting of September 18, 2018.



Senior Executive Analyst
Antelope Valley Air Quality Management District.

RULE 1110.2

Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

(A) General

(1) Purpose

- (a) To limit emissions of Oxides of Nitrogen (NO_x), Volatile Organic Compounds (VOCs) and Carbon Monoxide (CO) from Internal Combustion Engines.

(2) Applicability

- (a) This rule is applicable to all Internal Combustion Engine(s) over 50 bhp.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) “Air Pollution Control Officer (APCO)” – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.
- (2) “District” – The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103.
- (3) “Emergency Engine” – Any Engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair.
- (4) “Exempt Compounds” – Those compounds listed as excluded from the definition of volatile organic compounds in 40 CFR 51.100(s).
- (5) “Facility” – Any building, structure, emissions unit(s) or installation which emits or may emit a Regulated Air Pollutant and which is:
 - (a) Located on one or more contiguous or adjacent properties within the District; and
 - (b) Under the control of the same person (or by persons under common control); and

- (c) Belongs to the same industrial grouping, as determined by being within the same two-digit Standard Industrial Classification Code (SICC).
 - (d) For the purpose of this regulation, such above-described grouping, remotely located but connected only by land carrying a pipeline, shall not be considered one Facility.
- (6) “Internal Combustion Engine (Engine)” – Any spark- or compression-ignited Engine, not including Engines used for self-propulsion.
 - (7) “Location” – Any single site at a building, structure, Facility, or installation. For Engines that perform maintenance on equipment at its permanent or ordinary Location, each maintenance site shall be a separate Location.
 - (8) “Non-Road Engine” – Any Engine defined under 40 CFR Part 89, which meets the specified emissions limits therein, and that does not remain or will not remain at a Location for more than 12 consecutive months, or a shorter period of time where such period is representative of normal annual source operation at a stationary source that resides at a fixed Location for more than 12 months (e.g., seasonal source or operation such as canning facilities or equipment used to manufacture snow) and meets any one of the following:
 - (a) Is used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as an off highway mobile crane); or
 - (b) Is used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawn mowers and string trimmers); or
 - (c) By itself, or in or on a piece of equipment, is Portable or transportable. Portable means designed to be and capable of being carried or moved from one Location to another. Transportable includes, but is not limited to, wheels, skids, carrying handles, dolly, trailer, platform or mounting.
 - (9) “Portable Engine” – Any Engine designed and capable of being carried or moved from one Location to another. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

An Engine is not Portable if:

- (a) It is attached to a foundation at a single Location; or
- (b) It remains or will remain at a single Location for more than 12 consecutive months; or
- (c) It is a replacement Engine for a specific application which remains or is intended to remain for 12 consecutive months; or

- (d) It is a seasonal or other source that normally operates less than 12 consecutive months as its normal operational year.

Any period during which the Engine is not operated and is maintained at a designated storage facility shall be excluded from the residency time determination.

- (10) “Rated Brake Horsepower (bhp)” – The rating specified by the manufacturer, without regard to any derating, and listed on the Engine nameplate.
- (11) “Regulated Air Pollutant” – Any of the following air pollutants:
 - (a) Any air pollutant, and its precursors, for which an ambient air quality standard has been promulgated.
 - (b) Any air pollutant that is subject to a standard under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111) or the regulations promulgated thereunder.
 - (c) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. §7671a (Federal Clean Air Act §602) or the regulations promulgated thereunder.
 - (d) Any air pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112) or the regulations promulgated thereunder.
- (12) “Stationary Engine” – Any Engine which is either attached to a foundation or if not so attached, does not meet the definition of a Portable or Non-Road Engine and is not a motor vehicle as defined in Section 415 of the California Vehicle Code.
- (13) “Volatile Organic Compound (VOC)” – Any volatile compound of carbon, excluding Exempt Compounds.

(C) Requirements

(1) General Emissions Limits

(a) The owner or operator of any Stationary Engine subject to this rule shall:

- (i) Replace any such Engine with an electric motor; or
- (ii) Remove the Engine from service, permanently; or
- (iii) Ensure that the emissions from such Engine do not exceed the emission limits of TABLE I.

TABLE I		
GENERAL ENGINE EMISSIONS LIMITS		
NO_x	VOC	CO
36 ppm*	250 ppm*	2000 ppm*

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15-minute interval.

(2) Portable Engine Emission Limit

(a) The owner or operator of any Portable Engine subject to this rule shall:

- (i) Register the Engine with the CARB Statewide Portable Equipment Registration Program, successfully obtaining a valid certificate for the Engine; or
- (ii) Spark-Ignited Engines shall comply with the emission limits in TABLE II below:

TABLE II		
SPARK-IGNITION PORTABLE ENGINES COMPLIANCE LIMITS		
NO_x	VOC	CO
80 ppm*	240 ppm*	176 ppm*

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.

- (iii) Compression-Ignited Engines shall comply with the emission limits in TABLE III below:

TABLE III	
PORTABLE COMPRESSION-IGNITED ENGINE LIMITS	
Rated Brake Horsepower (bhp)	Requirements
50 bhp or greater	535 ppm* NO _x or a turbocharger and aftercooler/intercooler and 4-degree injection timing retard

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.

(D) Monitoring

- (1) For Stationary Engines of 1000 bhp and greater, subject to the provisions of section (C) of this rule and operating more than two million bhp-hr per calendar year:
 - (a) Continuous Emission Monitoring System (CEMS) Requirement
 - (i) The owner/operator shall install, operate and maintain a NO_x CEMS as approved by the APCO to demonstrate compliance within the emission limits of this rule.
 - (ii) This system shall include equipment that measures and records exhaust gas NO_x concentrations, corrected to 15% oxygen on a dry basis.
 - (iii) CEMS shall meet the requirements described in 40 CFR Part 60, particularly those in Appendix B, Spec. 2 and Appendix F.
 - (iv) CEMS reporting to the APCO shall be as prescribed in 40 CFR Part 60.7(c), 60.7(d) and 60.13, with NO_x reported after corrections to 15% oxygen on a dry basis.
 - (b) Alternative Monitoring Device or Equipment, in lieu of CEMS
 - (i) The owner/operator of an Engine that is required to install a CEMS may request in writing to the APCO, California Air Resources Board (CARB) and USEPA, approval of an alternative monitoring device (or system components) to demonstrate compliance with the limits of this rule.
 - (ii) The applicant shall demonstrate to the APCO, CARB and USEPA, that the proposed monitoring device is, at a minimum, comparable in relative accuracy, precision, reliability and timeliness to a CEMS for that Engine, on a case-by-case basis; or
 - (iii) The APCO, CARB and USEPA, may approve, on a case-by-case basis, criteria for equipment which is equivalent to the criteria specified in 40 CFR 75, Subpart E.
 - (iv) Such alternative monitoring device, equipment or procedure must be approved in writing by the APCO and obtain a valid permit to operate with the District. The approval shall include a monitoring plan that includes, at a minimum, equipment specifications, monitoring, record keeping, compliance testing and reporting requirements.

- (2) For Stationary Engines of less than 1,000 bhp and Stationary Engines of greater than 1,000 bhp operating less than two million bhp-hr per calendar year which are subject to the provisions of section (C):
- (a) Quarterly Screening Analysis
- (i) The owner/operator shall inspect each Engine each calendar quarter in which compliance testing is not required pursuant to subsection (F)(1) of this rule with a Portable NO_x analyzer to determine compliance with the emissions limits contained in section (C) of this rule.
 - (ii) An instrument reading in excess of the emission limit contained in section (C) of this rule shall not be considered a violation of this rule, so long as the problem is corrected and a follow-up inspection is conducted within 15 days of the initial inspection.
 - (iii) Instrument readings, a determination of whether or not the Engine is in compliance, a description of corrective action(s) taken, and the initials of the person recording the reading shall be recorded on an inspection log and kept in accordance with the provisions of section (G) of this rule.
- (b) Alternate Screening Analysis
- (i) The owner/operator of an Engine that is required to be inspected pursuant to subsection (D)(2)(a) above, may request in writing to the APCO, for approval of an alternate screening analysis to demonstrate compliance with the emissions limits contained in section (C) of this rule.
 - (ii) The application for an alternate screening analysis shall include:
 - a. A listing of each Engine, its permit number and Location which is to be subject to the alternate screening analysis.
 - b. A specific emission inspection procedure to assure that the Engine is operated in compliance with the provisions of this rule. Inspections shall be conducted every quarter or after every 2,000 hours of Engine operations whichever is less, but in no case less than quarterly.
 - c. A description and schedule of preventative maintenance procedures or practices which will be used to maintain the Engine(s) in compliance with the provisions of this rule.
- (3) Any monitoring system shall have data gathering and retrieval capability approved by the APCO. Data shall be maintained for at least five (5) years and made available for inspection by the APCO.

(E) Equipment Requirements

- (1) All Engines subject to this rule shall:
 - (a) Have an operational, non-resettable totalizing time (in hours) meter, to determine the Engines elapsed operating time.
 - (b) Have a non-resettable fuel meter or acceptable alternative as approved by the APCO, CARB and USEPA, to determine fuel consumption.

(F) Compliance Test Requirements and Methods

- (1) The owner/operator of any engine subject to this rule shall:
 - (a) Provide source test information regarding the exhaust gas; specifically for NO_x, VOC reported as methane and CO concentrations (concentrations in ppm by volume, corrected to 15% oxygen on dry basis) according to the following schedule:
 - (i) Once each 8,760 hours of operation or once every 24 months whichever period is shorter.
 - (ii) Compliance testing shall be conducted under conditions that are typical of normal Engine load and duty cycle.
 - (iii) The compliance test shall be conducted and the report received at the District not less than 90 days prior to the Engines permit renewal date.
 - (b) Conduct testing to verify compliance in accordance with the following test methods:
 - (i) NO_x emissions subject to the provisions of this rule shall be determined by the procedure detailed in EPA Test Method 7E.
 - (ii) CO emissions by EPA Test Method 10.
 - (iii) VOC emissions by EPA Test Method 25, 25A or 25B.
 - (iv) Other test methods determined to be equivalent after review by the staffs of the District, CARB, and the USEPA, and approved in writing by the APCO, may also be used to determine compliance with provisions of this rule.

(G) Record Keeping and Reporting

- (1) The owner/operator of any Engine shall maintain an Engine operating log on a monthly basis that includes:
 - (a) The total hours of operation for each day of operation; and
 - (b) Type and quantity of fuel used (liquid/gas); and

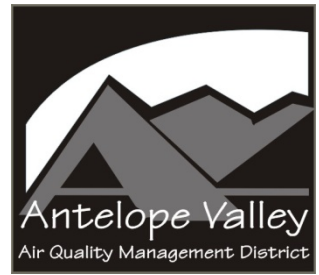
- (c) The cumulative hours of operation since the last source test required in subsection (F)(1); and
 - (d) The purpose or reason for operating the Engine for each day of operation.
 - (e) The results of any screening analysis or alternative screening analysis if required pursuant to subsection (D)(2).
- (2) Required records and data shall be available for inspection any time, remain at the Facility for five (5) years, and upon request, be submitted to the APCO at the end of each calendar year in a manner and form approved by the APCO.

(H) Exemptions

- (1) The provisions of sections (C), (D), (E), (F), and (G) shall not apply to:
- (a) Engines operated for the purpose of performance verification and testing.
 - (b) Auxiliary Engines used to power other Engines or gas turbines during start-ups.
 - (c) Portable Engines that are registered under the Statewide Portable Equipment Registration Program pursuant to Title 13, Article 5 of the CCR.
- (2) The provisions of sections (C), (D), and (F) shall not apply to:
- (a) The operation of any Engine during the existence of any officially declared disaster or state of emergency.
 - (b) Emergency Engines and Engines used for fire-fighting and flood control.
 - (c) Non-Road Engines.
 - (d) Laboratory Engines used in research and testing purposes.
 - (e) Supplemental Engines which operate for the manufacture of snow which have a Facility limit to operate 1200 hours or less during seasonal operations (November 1 through April 15).

See SIP Table at www.avagmd.ca.gov

Antelope Valley
Air Quality Management District



Final
Staff Report
Amendments to
Rule 1110.2 – *Emissions from Stationary, Non-Road
and Portable Internal Combustion Engines*

Adopted on
September 18, 2018

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LANCASTER, CALIFORNIA 93535-4649
PHONE (661) 723-8070

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STAFF REPORT

Rule 1110.2 – Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

I. PURPOSE OF STAFF REPORT

A staff report serves several discrete purposes. Its primary purpose is to provide a summary and background material to the members of the Governing Board. This allows the members of the Governing Board to be fully informed before making any required decision. It also provides the documentation necessary for the Governing Board to make any findings, which are required by law to be made prior to the approval or adoption of a document. In addition, a staff report ensures that the correct procedures and proper documentation for approval or adoption of a document have been performed. Finally, the staff report provides evidence for defense against legal challenges regarding the propriety of the approval or adoption of the document.

II. EXECUTIVE SUMMARY

On May 15, 2001 the Antelope Valley Air Pollution Control District (AVAPCD), the predecessor agency to the Antelope Valley Air Quality Management District (AVAQMD) adopted amendments to Rule 1110.2. Since Rule 1110.2 was inherited by the AVAPCD from the South Coast Air Quality Management District (SCAQMD) it contained provisions which did not apply within the District as well as implementation dates which had expired and other provisions which were not consistent with State and Federal requirements. The May 15, 2002 amendments corrected most of these problems and conformed the rule to AVAPCD rule format.

In November 2001, the California Air Resources Board (CARB) adopted a new Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion Engines (ICE RACT/BARCT Determination). CARB submitted the May 15, 2002 version of the rule to the United States Environmental Protection Agency (USEPA) as a revision to the State Implementation Plan (SIP) on December 14, 2001.

On August 7, 2002 USEPA expressed concern that certain provisions of Rule 1110.2 as adopted on May 15, 2001 were not completely consistent with the November ICE RACT/BARCT Determination. The Federal Clean Air Act requires areas designated nonattainment for ozone and classified moderate and above to adopt and maintain reasonably available control technology (RACT) rules for major stationary sources of volatile organic compounds (VOCs) and Oxides of Nitrogen (NOx). The Antelope Valley is subject to the RACT rule requirements because it has been designated nonattainment for Ozone and classified Severe-17. Therefore, USEPA could not approve a SIP revision which was not consistent with the most recent ICE RACT/BARCT Determination even though the ICE RACT/BARCT Determination had been adopted subsequent to the adoption of the Rule.

The AVAQMD subsequently amended Rule 1110.2 on May 15, 2001 and January 21, 2004. USEPA proposed a Limited Approval/Limited Disapproval (69 FR 211482) of the revision. The LA/LD also included a request for justification of the seasonal exemption for engines used for snow manufacturing and ski lift operation, request for correction of several citations and increasing record retention from 2 years to 5 years. Specifically USEPA was concerned that the agricultural exemption, and possibly the snow/ski exemption disqualified Rule 1110.2 from meeting RACT.

III. STAFF RECOMMENDATION

Staff recommends that the Governing Board adopt the proposed amendments to Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* and approve the appropriate California Environmental Quality Act (CEQA) documentation. This action is necessary to satisfy 42 U.S.C. §§7511a (Federal Clean Air Act (FCAA)) §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors.

The Governing Board of AVAQMD amended Rule 1110.2 - *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* on September 18, 2018.

IV. LEGAL REQUIREMENTS CHECKLIST

The findings and analysis as indicated below are required for the procedurally correct amendments to Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines*. Each item is discussed, if applicable, in Section V. Copies of related documents are included in the appropriate appendices.

FINDINGS REQUIRED FOR RULES & REGULATIONS:

- X Necessity
- X Authority
- X Clarity
- X Consistency
- X Nonduplication
- X Reference
- X Public Notice & Comment
- X Public Hearing

REQUIREMENTS FOR STATE IMPLEMENTATION PLAN SUBMISSION (SIP):

- X Public Notice & Comment
- X Availability of Document
- X Notice to Specified Entities (State, Air Districts, USEPA, Other States)
- X Public Hearing
- X Legal Authority to adopt and implement the document.
- X Applicable State laws and regulations were followed.

ELEMENTS OF A FEDERAL SUBMISSION:

- N/A Elements as set forth in applicable Federal law or regulations.

CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS (CEQA):

- N/A Ministerial Action
- N/A Exemption
- X Negative Declaration
- N/A Environmental Impact Report
- X Appropriate findings, if necessary.
- X Public Notice & Comment

SUPPLEMENTAL ENVIRONMENTAL ANALYSIS (RULES & REGULATIONS ONLY):

- X Environmental impacts of compliance.
- X Mitigation of impacts.
- X Alternative methods of compliance.

OTHER:

- X Written analysis of existing air pollution control requirements
- X Economic Analysis
- X Public Review

V. DISCUSSION OF LEGAL REQUIREMENTS

A. REQUIRED ELEMENTS/FINDINGS

This section discusses the State of California statutory requirements that apply to the proposed amendments to Rule 1110.2. These are actions that need to be performed and/or information that must be provided in order to amend the rule in a procedurally correct manner.

1. State Findings Required for Adoption of Rules & Regulations:

Before adopting, amending, or repealing a rule or regulation, the District Governing Board is required to make findings of necessity, authority, clarity, consistency, non-duplication, and reference based upon relevant information presented at the hearing. The information below is provided to assist the Board in making these findings.

a. Necessity:

The amendments to Rule 1110.2 are necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors.

b. Authority:

The District has the authority pursuant to California Health and Safety Code (H & S Code) §40702 to adopt, amend or repeal rules and regulations.

c. Clarity:

The amendments to Rule 1110.2 are clear in that they are written so that the persons subject to the Rule can easily understand the meaning.

d. Consistency:

The amendments to Rule 1110.2 are in harmony with, and not in conflict with or contradictory to, any State law or regulation, federal law or regulation, or court decisions. The proposed rule is consistent with current federal RACT as determined by comments from USEPA, other related national rules and guidance and the rules of other California air districts with nonattainment designations.

e. Nonduplication:

The amendments to Rule 1110.2 do not impose the same requirements as an existing State or federal law or regulation. A rule is necessary to implement the applicable provisions of these documents.

f. Reference:

The District has the authority pursuant to H & S Code §40702 to adopt, amend or repeal rules and regulations.

g. Public Notice & Comment, Public Hearing:

Notice for the public hearing for the proposed amendments to Rule 1110.2 was published on August 17, 2018. See Appendix “B” for a copy of the public notice. See Appendix “C” for copies of comments, if any, and District responses.

2. Federal Elements (SIP Submittals, Other Federal Submittals).

Submittals to USEPA are required to include various elements depending upon the type of document submitted and the underlying Federal law that requires the submittal. The information below indicates which elements are required for the proposed amendment to Rule 1110.2 and how they were satisfied.

a. Satisfaction of Underlying Federal Requirements:

The FCAA requires areas designated non-attainment and classified moderate and above to implement RACT for sources subject to current federal RACT and for “major sources” of VOCs and NO_x that are ozone precursors. The District committed to adopting an updated RACT rule for internal combustion engines as part of the *RACT SIP Analysis*. The AVAQMD is proposing to update Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* to reflect current federal RACT as determined by comments from USEPA, other related national rules and guidance, CARB ICE RACT/BARCT Determination and the rules of other California air districts with similar nonattainment designations.

b. Public Notice and Comment:

Notice for the public hearing for the proposed amendments to Rule 1110.2 was published on August 17, 2018. See Appendix “B” for a copy of the public notice. See Appendix “C” for copies of comments, if any, and District responses.

c. Availability of Document:

Copies of the proposed amendments to Rule 1110.2 and the accompanying draft staff report were made available to the public on August 3, 2018.

d. Notice to Specified Entities:

Copies of the proposed amendments to Rule 1110.2 and the accompanying draft staff report were sent to all affected agencies. The proposed amendments were sent to the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (USEPA) on August 3, 2018.

e. Public Hearing:

A public hearing to consider the proposed amendments to Rule 1110.2 was held September 18, 2018.

f. Legal Authority to Adopt and Implement:

The District has the authority pursuant to H&S Code §40702 to adopt, amend, or repeal rules and regulations and to do such acts as may be necessary or proper to execute the duties imposed upon the District.

g. Applicable State Laws and Regulations Were Followed:

Public notice and hearing procedures pursuant to H&S Code §§40725-40728 have been followed. See Section (V)(A)(1) above for compliance with state findings required pursuant to H&S Code §40727. See Section (V)(B) below for compliance with the required analysis of existing requirements pursuant to H&S Code §40727.2. See Section (V)(C) for compliance with economic analysis requirements pursuant to H&S Code §40920.6. See Section (V)(D) below for compliance with provisions of the CEQA.

B. WRITTEN ANALYSIS OF EXISTING REQUIREMENTS

H & S Code §40727.2 requires air districts to prepare a written analysis of all existing federal air pollution control requirements that apply to the same equipment or source type as the rule proposed for modification by the district.

The Federal Clean Air Act requires areas designated non-attainment for ozone and classified moderate and above to adopt and maintain RACT rules to control the emissions of VOCs and NO_x for categories which the USEPA has adopted a CTG and for all categories where there are major stationary sources of air pollution (42 U.S.C. §7511a(b)(2), FCAA

182(b)(2)). For purposes of the FCAA, the District has been designated non-attainment for ozone and classified Severe-17.

The AVAQMD committed to amending Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* as part of the recently adopted *RACT SIP Analysis*.

The AVAQMD has an internal combustion engine rule which was amended January 21, 2003 and on April 21, 2004, EPA proposed a Limited Approval/Limited Disapproval (LA/LD) (69 FR 21482, 04/21/2004) of the revision. The LA/LD was based on the agricultural engine exemption and included a request for justification of the seasonal exemption for engines used for snow manufacturing and ski lift operation, request for correction of several citations and increasing record retention from 2 to 5 years. Specifically, USEPA determined that the agricultural exemption and possibly the snow manufacturing/ski lift exemption disqualified Rule 1110.2 from meeting RACT.

The proposed amendments are based on USEPA's determination that the agricultural exemption and possibly the snow manufacturing/ski lift exemption disqualified Rule 1110.2 from meeting RACT.

C. ECONOMIC ANALYSIS

1. General

RACT is defined as the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53762, September 17, 1979). Rule 1110.2 is equivalent to rules that were determined by USEPA to be RACT. This determination by USEPA means that the provisions of Rule 1110.2 are, by definition, cost effective. In addition, all sources are currently in compliance with this RACT limit without additional control equipment or cost. As a result, no additional cost impacts are expected from the proposed amendments.

2. Incremental Cost Effectiveness

Pursuant to H&S Code §40920.6, incremental cost effectiveness calculations are required for rules and regulations which are adopted or amended to meet the California Clean Air Act (CCAA) requirements for Best Available Retrofit Control Technology (BARCT) or "all feasible measures" to control volatile compounds (VOCs), oxides of nitrogen (NOx) or oxides of sulfur (SOx). The amendment of Rule 1110.2 is not subject to incremental cost effectiveness calculations because it does not involve BARCT or "all feasible measures."

D. ENVIRONMENTAL ANALYSIS (CEQA)

Through the process described below the appropriate CEQA process for the proposed amendments to Rule 1110.2 was determined.

1. The proposed amendments to Rule 1110.2 meet the CEQA definition of “project”. They are not “ministerial” actions.

2. The proposed amendments to Rule 1110.2 are exempt from CEQA review because they will not create any adverse impacts on the environment. The proposed rule amendments are more stringent than the previous rule version. This rule has been strengthened by removing the Ag exemption, reducing the Portable Compression-Ignited Engine limits, and limiting the number of hours allowed during seasonal operation for snow manufacturing. Because there is no potential that the amendment might cause the release of additional air contaminants or create any adverse environmental impacts, a Class 8 categorical exemption (14 Cal. Code Reg. §15308) applies. Copies of the documents relating to CEQA can be found in Appendix “D”.

E. SUPPLEMENTAL ENVIRONMENTAL ANALYSIS

1. Potential Environmental Impacts

The District does not anticipate any potential environmental impacts of compliance with the proposed amendments to Rule 1110.2, as the amendments primarily removes the agricultural exemption and limits the number of hours allowed during seasonal operation for snow manufacture. In addition, since no additional emissions control or control equipment is required by the proposed amendments there are no anticipated direct or indirect adverse environmental impacts.

2. Mitigation of Impacts

N/A

3. Alternative Methods of Compliance

N/A

F. PUBLIC REVIEW

See Staff Report Section (V)(A)(1)(g) and (2)(b), as well as Appendix “B”

VI. TECHNICAL DISCUSSION

A. SOURCE DESCRIPTION

Rule 1110.2 applies to all Stationary, Non-Road and Portable Internal combustion engines over 50 bhp. Certain engines are exempt from some of the rule requirements (See prior section (I)/proposed amended section (H)). The proposed amendment is more stringent than the current version as the applicability is now applied to all engines over 50 bhp. The applicability of Portable Engines over 100 bhp has been removed.

B. EMISSIONS

The proposed amendments to Rule 1110.2 have reduced the emission limits for Portable Compression-Ignited Engines contained in the current rule. Therefore, the District expects the current district-wide emissions levels for this source category to remain constant unless and until the population of engines subject to this rule increases beyond the normal growth projected in the District's emissions inventory.

C. CONTROL REQUIREMENTS

The proposed amendments to Rule 1110.2 change only the emissions limits for Portable Compression-Ignited Engines contained in the current rule. Therefore, no additional control requirements are imposed.

D. PROPOSED RULE SUMMARY

This section gives a brief overview of the proposed amendments to Rule 1110.2.

The rule formatting has been updated for consistency with other District rules.

Subsection (A)(2)(a) This rule is now applicable to ALL engines over 50 bhp.

Section (B) The following definitions have been added or updated:

- District has been added.
- Emergency Engine has been updated.
- Exempt Compounds verbiage has been revised per USEPA comment on other District Rule submissions.
- Internal Combustion Engine (ICE) has been updated.
- Non-Road Internal Combustion Engine (Non-road ICE) has been updated.
- Portable Internal Combustion Engine (Portable ICE) has been updated.
- Reactive Organic Compound has been removed.
- Stationary Internal Combustion Engine has been updated.
- Volatile Organic Compound verbiage has been revised as per USEPA comment on other District Rule submissions.

Subsection (C)(2)(b) citation has been corrected as per USEPA evaluation (69 FR 21482 04/21/2004). In response to USEPA email dated 08/14/18, this subsection is being removed.

Table II was put in ascending order and EFF calculation was reformatted. Table II is now being removed as part of subsection (C)(2) removal.

Table IV Portable Compression-Ignited Engine Limits now has one emission limit.

Existing Section (D) compliance dates are past and will be removed.

Prior rule section (E)(1)(a)(iv), Amended rule section (D)(1)(a)(iv), in response to USEPA comment, has clarified reporting requirement.

Prior rule section (E)(1)(b)(i), (ii) and (iii), Amended rule section (D)(1)(b)(i), (ii) and (iii), in response to USEPA comment, have been changed to add USEPA and CARB.

Prior rule section (E)(3), Amended rule section (D)(3) has been updated as per USEPA evaluation, LA/LD (69 FR 21482, 04/21/2004).

Prior rule section (F), Amended rule section (E) is now Equipment Requirements and Compliance Testing requirements have been moved to section (F).

Amended rule section (F) is now Compliance Test Requirements and Methods. Compliance Test Methods was moved from previous rule section (H).

Prior rule section (I)(1)(a), Amended rule section (H)(1)(a), removed agricultural exemption as per USEPA evaluation contained in LA/LD (69 FR 21482, 04/21/2004).

Prior rule subsection (I)(2)(b), Amended rule subsection (H)(2)(b) added provisions for fire-fighting, flood control and other Emergency Engines. In response to USEPA email dated 08/14/18, verbiage has been modified to remove “and other Emergency Engines”.

Prior rule subsection (I)(2)(f), Amended rule subsection (H)(2)(f) has been modified to impose a facility limit for the number of hours allowed to operate during seasonal operation.

Prior rule subsection (I)(2), Amended rule subsection (H)(2) has been corrected for incorrect ascending lettering. Prior subsection (I)(2) read (I)(2)(a), (b), (c), (e) and (f). It now reads (H)(2)(a), (b), (c), (d) and (e).

E. SIP HISTORY

1. SIP History.

Prior to 1975 the original air district for the Antelope Valley region was the Los Angeles County Air Pollution Control District that had a jurisdiction covering the entire county of Los Angeles. In 1975, the Southern California APCD was created. It was a joint powers authority that had a jurisdiction covering all of the counties of Los Angeles, Orange, Riverside and San Bernardino. The SCAQMD came into existence pursuant to statute on February 1, 1976 and originally covered only the areas within the South Coast Air Basin (SCAB). The legislation was thereafter amended to allow non-SCAB areas to “opt in.” Los Angeles County exercised this option and thus the Antelope Valley became a part of SCAQMD. On July 1, 1997 the AVAPCD replaced the SCAQMD as the agency with jurisdiction over the Los Angeles County portion of the Mojave Desert Air Basin (MDAB). On January 1, 2002 the AVAPCD was replaced by the AVAQMD. Pursuant to both statutory changes, the rule and regulations of the predecessor district were retained until the Governing Board adopted, amended or

rescinded them. At the first meeting of both the AVAPCD and the AVAQMD, the respective Governing Boards reaffirmed all the rules and regulations in effect at the time the agency changed.

The jurisdiction of the AVAPCD and the AVAQMD were specified in the statutes as the portion of the Los Angeles County contained within the MDAB. The MDAB was formerly known as the Southeast Desert Air Basin (SEDAB). In 1997 the SEDAB was split into the MDAB and the Salton Sea Air Basin. Descriptions of these air basins can be found in 17 Cal. Code Regs. §§60109 and 60144. Since USEPA adopts SIP revisions in California as effective within jurisdictional boundaries of local air districts, when the local air district boundaries change the SIP as approved by USEPA for that area up to the date of the change remains as the SIP in that particular area. Thus, upon creation of the AVAPCD on July 1, 1997 the AVAPCD acquired the SIP applicable to the Antelope Valley portion of the SCAQMD that was effective as of June 30, 1997. Likewise the AVAQMD acquired the SIP that was effective in the jurisdiction of the AVAPCD as of December 31, 2000. Therefore, the SIP history for this region is based upon the rules adopted, effective, and approved for the Antelope Valley by SCAQMD.

Rule 1110.2 was originally adopted on 8/3/90 by the South Coast Air Quality Management District (SCAQMD) and was subsequently amended on 9/7/90. The 9/7/90 version was submitted to USEPA as a revision to the State Implementation Plan (SIP) on 4/5/91. The Rule was thereafter amended on 8/12/94 and 12/9/94. The 12/9/94 version was submitted to USEPA on 4/13/95. USEPA published a Notice of Proposed Rule Making on 2/28/97 proposing a limited approval/disapproval of the rule as a SIP revision. On 5/15/01 the AVAPCD board amended Rule 1110.2 and requested that CARB submit it as a SIP revision to USEPA. This was not done by CARB until 12/14/01 after CARB had adopted the new ICE RACT/BARCT Determination.

On January 1, 2002 the AVAPCD was succeeded by the AVAQMD which had the same jurisdiction and same rules as the prior agency. Based upon the ICE RACT/BARCT Determination, USEPA contacted the AVAQMD and indicated that it could not provide full SIP approval of the rule as adopted due to fact that it did not completely comply with the requirements of the ICE RACT/BARCT Determination. USEPA requested that the rule be conformed and indicated that it would not take any action on the 5/15/01 rule if the AVAQMD was planning on revising the rule in the near future. AVAQMD thereafter proposed a rule development schedule to USEPA and agreed to conform the rule to the ICE RACT/BARCT determination.

2. SIP Analysis.

The District will request CARB to submit the proposed amendments to Rule 1110.2 to USEPA for inclusion into the State Implementation Plan. This

submission is necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors. The District will request that this version, upon approval, supersede the current SIP version as well as any potential outstanding SIP submissions made prior to the adoption date.

The proposed amendments to Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* are more stringent in that the exemption for agricultural engines has been removed and a limited number of operating hours allowed during seasonal operation have been added.

Appendix “A”

Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* Iterated Version

The iterated version is provided so that the changes to an existing rule may be easily found. The manner of differentiating text is as follows:

1. Underlined text identifies new or revised language.
2. ~~Lined-out text~~ identifies language which is being deleted.
3. Normal text identifies the current language of the rule which will remain unchanged by the adoption of the proposed amendments.
4. *[Bracketed italicized text]* is explanatory material that is not part of the proposed language. It is removed once the proposed amendments are adopted.

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RULE 1110.2

Emissions ~~F~~from Stationary, Non-~~r~~Road ~~&and~~ Portable Internal Combustion Engines

(A) General

(1) Purpose

- (a) To limit emissions of Oxides of Nitrogen (NOx), Volatile Organic Compounds (VOCs) and Carbon Monoxide (CO) from ~~Stationary or Portable~~ Internal Combustion Engines.

(2) Applicability

- (a) This rule is applicable to all Stationary Internal Combustion Engine(s) over 50 bhp. ~~and all portable engines over 100 bhp.~~

(B) Definitions

For the purpose of this rule, the following definitions shall apply: [added in response to USEPA email, #1, dated 08/14/18]

- (1) “Air Pollution Control Officer (APCO)” – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

- (2) “District” – The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103. [Derived from AVAQMD Rule 102 (M).]

- (23) “Emergency Engine” – Any ~~e~~Engine which operates ~~;~~

- ~~(a) — As a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair;~~ ~~and~~

- ~~(b) — Less than 200 hours per calendar year as evidenced by an installed and operating engine hour meter and log of operating hours per Subsections (F) and (G) of this rule. [The intended purpose of the “Emergency “classification” is to allow an engine to operate, as needed, to preserve or protect property, human life or public health. Derived from SCAQMD RACT rule, amended 02/01/08 (74 FR 18995, 04/27/09)]~~

(34) “Exempt Compounds” – ~~Those C~~ompounds listed as excluded from the definition of Volatile Organic Compounds in 40 CFR 51.100(s)(4). *[Definition verbiage updated with approved language per District Counsel Karen K. Nowak and USEPA Attorney Advisor Douglas Bushey in email dated 08/08/18 re: AV Rule 1171 also in response to USEPA email, #2, dated 08/14/18.]*

(45) “Facility” – Any building, structure, emissions unit(s) or installation which emits or may emit a Regulated Air Pollutant and which is:

- (a) Located on one or more contiguous or adjacent properties within the District; and
- (b) Under the control of the same person (or by persons under common control); and
- (c) Belong to the same industrial grouping, as determined by being within the same two-digit Standard Industrial Classification Code (SICC).
- (d) For the purpose of this regulation, such above-described grouping, remotely located but connected only by land carrying a pipeline, shall not be considered one Facility.

(56) “Internal Combustion Engine (~~ICE~~Engine)” – Any spark- or compression-ignited ~~internal combustion e~~Engine, not including ~~ICEs~~Engines used for self-propulsion.

(67) “Location” – Any single site at a building, structure, ~~f~~Facility, or installation. For ~~e~~Engines that perform maintenance on equipment at its permanent or ordinary ~~H~~Location, each maintenance site shall be a separate ~~H~~Location.

(78) “Non-~~r~~Road ~~Internal Combustion Engine (Non-road ICE)~~” – Any ~~ICE~~Engine defined under 40 CFR Part 89, which meets the specified emissions limits therein, and that does not remain or will not remain at a ~~H~~Location for more than ~~twelve (12)~~ consecutive months or a shorter period of time where such period is representative of normal annual source operation at a stationary source that resides at a fixed ~~H~~Location or more than ~~twelve (12)~~ months (e.g., seasonal source or operation such as canning facilities or, ski resort snow-making equipment used to manufacture snow) and meets any one of the following:

- (a) Is used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as an off highway mobile crane); or
- (b) Is used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawn mowers and string trimmers); or
- (c) By itself, or in or on a piece of equipment, is ~~p~~Portable or transportable. Portable means designed to be and capable of being carried or moved from

one Hlocation to another. Transportable includes, but is not limited to, wheels, skids, carrying handles, dolly, trailer, platform or mounting.

- (89) ~~“Portable Internal Combustion Engine Engine(Portable ICE)”~~ – Any ~~ICE~~Engine designed and capable of being carried or moved from one Hlocation to another. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. ~~For the purposes of this rule, dredge ICEs on a boat or barge are considered portable ICE. [The AVAQMD does not have any sources or have any areas within our District that include dredge engines on a boat or barge.]~~

~~The~~An ICEEngine is not pPortable if: ~~any of the following are true:~~

- (a) ~~It is~~ attached to a foundation at a single Hlocation; or
- (b) ~~It R~~emains or will remain at a single Hlocation for more than 12 consecutive months; or
- (c) ~~It is~~ a replacement EngineICE for a specific application which remains or is intended to remain for ~~twelve~~(12) consecutive months; or
- (d) ~~It is~~ a seasonal or other source that normally operates less than ~~twelve~~(12) consecutive months as its normal operational year.

~~(e)~~—Any period during which the EngineICE is not operated and is maintained at a designated storage facility shall be excluded from the residency time determination.

- (910) “Rated Brake Horsepower (bhp)” – The rating specified by the manufacturer, without regard to any derating, and listed on the ~~ICE’s~~Engine nameplate.

~~(10) “Reactive Organic Compound (ROC)” – Any compound containing carbon, which participates in atmospheric photochemical reactions, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and those compounds listed in 17 California Code of Regulations §94508(a)(90)(1-2). [Defined word not used in this rule.]~~

- (11) “Regulated Air Pollutant” – Any of the following Aair Ppollutants:

- (a) Any Aair Ppollutant, and its Pprecursors, for which an Aambient Aair Quality Standard has been promulgated. [Capitalization correction as words are not defined in this rule.]
- (b) Any Aair Ppollutant that is subject to a standard under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Air

Act §111) or the regulations promulgated thereunder. [Capitalization correction as word is not defined in this rule.]

- (c) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. §7671a (Federal Clean Air Act §602) or the regulations promulgated thereunder.
- (d) Any ~~A~~air ~~P~~pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112) or the regulations promulgated thereunder. [Capitalization correction as word is not defined in this rule.]

- (12) ~~“Stationary Internal Combustion Engine (Stationary ICE)”~~ – Any ~~EngineICE~~ which is either attached to a foundation or if not so attached, does not meet the definition of a Portable or Non-Road engine and is not a motor vehicle as defined in Section 415 of the California Vehicle Code not a Portable ICE or any ICE registered in the State-wide Portable Equipment Program. [Derived from SCAQMD Rule 1110.2, definition (c)(18), 02/01/2008 (74FR18995, 04/27/2009).]
- (13) ~~“Volatile Organic Compound (VOC)”~~ – Any volatile compound ~~containing the element of~~ carbon, ~~excluding which participates in atmospheric photochemical reactions, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and those compounds listed in 40 CFR 51.100(s)(1) Exempt Compounds.~~ [Definition verbiage updated to reflect change in (B)(3). Approved language per District Counsel Karen K. Nowak and USEPA Attorney Advisor Douglas Bushey.]

(C) Requirements

(1) General Emissions Limits

- (a) The owner or operator of any Stationary ~~ICE~~Engine subject to this rule shall:
 - (i) Replace any such ~~EngineICE~~ with an electric motor; or
 - (ii) Remove the ~~EngineICE~~ from service, permanently; or
 - (iii) Ensure that the emissions from such ~~EngineICE~~ do not exceed the emission limits of TABLE I.

Table I GENERAL ENGINEICE EMISSIONS LIMITS		
NO _x	VOC	CO
36 ppm*	250 ppm*	2000 ppm*

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15-minute interval.

(2) ~~Alternative Emission Limits for NO_x and VOC~~

(a) ~~Notwithstanding the provisions of subsection (C)(1), above the owner or operator of any of the following:~~

- ~~(i) An electric power generating engine;~~
- ~~(ii) A landfill gas or sewage digester gas fueled engine;~~
- ~~(iii) An engine used to drive a water supply or conveyance pump except for aeration facilities;~~
- ~~(iv) An oil field produced gas fired engine;~~
- ~~(v) An integral engine compressor application operating less than 4000 hours per calendar year, or~~
- ~~(vi) A liquefied petroleum gas (LPG) fueled engine~~

(b) ~~May, in lieu of compliance with subsection (C)(1)(ca)(iii) above;~~
~~[Corrected as per USEPA evaluation, LA/LD (69FR21482, 04/21/2004)]~~

- ~~(i) Ensure that the emissions from such ICEEngines do not exceed the emissions limits of carbon monoxide (CO) of Table I, and~~
- ~~(ii) Ensure that the emissions of oxides of nitrogen (NO_x), and VOC (measured as methane from such eEngines) do not exceed the Alternate Compliance Limit calculated as follows:~~

$$\text{Alternate Compliance Limit} = \text{Reference Limit} \times \text{EEF}/25\%$$

Where:

Alternate Compliance Limit = Allowable NO_x or VOC emissions (ppm by volume)

Reference Limit = The NO_x or VOC reference emission limit (ppm by volume) for various bhp ~~Engines~~ICEs corrected to ~~fifteen percent (15%)~~ oxygen on a dry gas basis and averaged over ~~fifteen (15)~~ consecutive minutes as listed in Table II

TABLE II REFERENCE EMISSIONS LIMITS		
B bhp Rating	NO _x	VOC

50 to 500 bhp	45 ppm	250 ppm
500 bhp and greater	36 ppm	250 ppm
50 to 500 bhp	45 ppm	250 ppm

~~[Table II changed to ascending order in bhp column]~~ And,

		3413 x 100%
EFF	=	
		Actual Heat Rate at HHV of Fuel (Btu/kW-hr)

~~(EFF calculation was reformatted for clarity.)~~

$$EFF = \frac{3413 \times 100\%}{\text{Actual Heat Rate at HHV of Fuel (Btu/kW-hr)}}$$

or

			LHV
EFF	=	(Manufacturer's Rated Efficiency at LHV) x	=====
			HHV
EFF	=	The demonstrated percent efficiency at full load when averaged over 15 consecutive minutes of the ICE only, as calculated, within 30 days of the first source test, without consideration of any downstream energy recovery from the actual heat rate, (Btu/kW-hr) or 1.34 (Btu/hp-hr); corrected to the HHV (higher heating value) of the fuel as measured at peak load for that facility; or the manufacturer's continuous rated percent efficiency (manufacturer's rated efficiency) of the ICE after correction from LHV (lower heating value) to the HHV of the fuel, whichever efficiency is higher. The value of EFF shall not be less than 25 percent. ICEs having lower efficiencies will be assigned a 25-percent efficiency for this calculation.	

$$EFF = \text{Manufacturer's Rated Efficiency at LHV} \times \left(\frac{LHV}{HHV} \right)$$

~~(EFF=The demonstrated percent efficiency at full load when averaged over 15 consecutive minutes of the Engine only, as calculated, within 30 days of the first source test, without consideration of any downstream energy recovery from the actual heat rate, (Btu/kW-hr) or 1.34 (Btu/hp-hr); corrected to the HHV (higher heating value) of the fuel as measured at peak load for that Facility; or the manufacturer's continuous rated percent efficiency (manufacturer's rated efficiency) of the Engine after correction from LHV (lower heating value) to the HHV of the fuel, whichever efficiency is higher. The value of EFF shall not be less than 25%. Engines having lower efficiencies will be assigned a 25% efficiency for~~

~~this calculation.) (EFF calculation was reformatted for clarity.) [In response to USEPA email received 08/14/18, #4, Subsection (C)(2) Alternative Emission Limits for NOx and VOC is being removed as the list of engines in (C)(2)(a)(i) currently comply with Table I.]~~

(32) Portable ~~EngineICE~~ Emission Limit

- (a) The owner or operator of any Portable ~~EngineICE~~ subject to this rule shall:
- (i) Register the ~~EngineICE~~ with the CARB State-wide Portable Equipment ~~Registration~~ Program, successfully obtaining a valid certificate for the ~~EngineICE~~; or
- (ii) ~~For s~~Spark-~~i~~gnited ~~EnginesICEs~~ shall comply with the ~~following~~ emissions limits in TABLE ~~III~~ below:

TABLE III SPARK-IGNITION PORTABLE ENGINESICEs COMPLIANCE LIMITS		
NOx	VOC	CO
80 ppm*	240 ppm*	176 ppm*

* -Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.

- (iii) ~~For e~~Compression-~~i~~gnited ~~EnginesICEs~~ shall comply with the ~~following~~ emissions limits in TABLE ~~IVIII~~ below:-

TABLE IVIII PORTABLE COMPRESSION-IGNITED ENGINEICE LIMITS	
Rated Brake Horsepower (bhp)	Requirements
100 bhp ≥ X < 117 bhp	770 ppm* NOx or a turbocharger and 4-degree injection timing retard
117 bhp ≥ X < 400 bhp	550 ppm* NOx or a turbocharger and aftercooler/intercooler and 4 degree injection timing retard
50 bhp or greater X → 400 bhp	535 ppm* NOx or a turbocharger and aftercooler/intercooler and 4-degree injection timing retard

* -Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.
[Prior Table III will now be Table II and prior Table IV will now be Table III as prior Table II is being deleted.]

~~(D)~~ Compliance Schedule

~~The owner or operator of any ICEs subject to this rule shall comply with the requirements of this rule in accordance with the following schedule:~~

- ~~(1) For existing Stationary ICEs, the emissions limits of subsection (C)(1) or (2) shall apply. Emission limits are specified in subsection (C)(1) and (C)(2)~~
- ~~(2) For Portable ICEs operated pursuant to subsection (C)(3):~~
 - ~~(a) By December 31, 2009, the owner/operator shall complete stack modifications to facilitate source testing required pursuant to sections (E) and (F) of this rule. All known engines have complied and compliance date has passed~~
- ~~(3) Any new ICE that is not an existing ICE must be in compliance with the provisions of this and other applicable rules before being placed in service. Any owner/operator of any new engine must be in compliance with this rule to obtain a permit before being placed in service. All known existing Engines are in compliance.~~

~~(ED)~~ Monitoring

- (1) For ~~s~~Stationary ~~Engines~~ ~~ICEs~~ of 1000 bhp and greater, subject to the provisions of section (C) of this rule and operating more than two million bhp-hr per calendar year:
 - (a) Continuous Emission Monitoring System (CEMS) Requirement
 - (i) The ~~owner/operator~~ shall install, operate and maintain ~~in calibration~~ a ~~NO_{xx} continuous emission monitoring system (CEMS)~~ as approved by the APCO to demonstrate compliance within the emission limits of this rule.
 - (ii) ~~Measurement and Recording~~—This system shall include equipment that measures and records exhaust gas NO_{xx} concentrations, corrected to 15% ~~percent~~ oxygen on a dry basis.
 - (iii) ~~CEMS System Requirements~~—CEMS shall meet the requirements described in 40 CFR Part 60, particularly those in Appendix B, Spec. 2 and ~~Appendix F~~.
 - (iv) ~~CEMS Reporting Requirements~~—CEMS reporting to the APCO shall be as prescribed in 40 CFR Part 60.7(c), 60.7(d) and 60.13, with NO_x reported after corrections to 15% ~~percent~~ oxygen on a dry basis. In response to USEPA, email dated 08/14/18, #6, Reporting requirement to APCO clarified as per Kevin Gong.

- (b) Alternative Monitoring Device or Equipment, in lieu of CEMS
 - (i) The owner/operator of an ~~EngineICE~~ that is required to install a CEMS may request in writing to the APCO, California Air Resources Board (CARB) and USEPA, approval of an alternative monitoring device (or system components) to demonstrate compliance with the limits of this rule. [CARB and USEPA added in response to USEPA email dated 09/07/18.]
 - (ii) The applicant shall demonstrate to the APCO, CARB and USEPA, that the proposed monitoring device is, at a minimum, comparable in relative accuracy, precision, reliability and timeliness to a CEMS for that ~~EngineICE~~, on a case-by-case basis; or [In response to USEPA email dated 08/14/18, #5, CARB and USEPA approval added.]
 - (iii) The APCO, CARB and USEPA, may approve, on a case-by-case basis, criteria for equipment which is equivalent to the criteria specified in 40 CFR 75, Subpart E. [In response to USEPA email dated 08/14/18, #5, CARB and USEPA approval added.]
 - (iv) Such alternative monitoring device, equipment or procedure must be approved in writing by the APCO and obtain a valid permit to operate with the District. The approval shall include a monitoring plan that includes, at a minimum, equipment specifications, monitoring, record keeping, compliance testing and reporting requirements.
- (2) For ~~s~~Stationary ~~EnginesICEs~~ of less than 1,000 bhp and ~~s~~Stationary ~~EnginesICEs~~ of greater than 1,000 bhp operating less than two million bhp-hr per calendar year which are subject to the provisions of section (C) ~~: of this rule:~~
 - (a) Quarterly Screening Analysis
 - (i) The owner/operator shall inspect each ~~e~~Engine each calendar quarter in which compliance testing is not required pursuant to subsection (F)(1)~~(e)~~ of this rule with a ~~p~~Portable NO_{xx} analyzer to determine compliance with the emissions limits contained in section (C) of this rule.
 - (ii) An instrument reading in excess of the emission limit contained in section (C) of this rule shall not be considered a violation of this rule, so long as the problem is corrected and a follow-up inspection is conducted within ~~fifteen~~ (15) days of the initial inspection.
 - (iii) Instrument readings, a determination of whether or not the ~~e~~Engine is in compliance, a description of corrective action(s) taken, and the initials of the person recording the reading shall be recorded on an inspection log and kept in accordance with the provisions of section (G) of this rule.

(b) Alternate Screening Analysis

- (i) The owner/operator of an ~~Engine~~ICE that is required to be inspected pursuant to subsection (~~ED~~)(2)(a) above, may request in writing to the APCO, ~~in writing~~, for approval of an alternate screening analysis to demonstrate compliance with the emissions limits contained in section (C) of this rule.
- (ii) The application for an alternate screening analysis shall include:
 - a. A listing of each ~~e~~Engine, its permit number and Hlocation which is to be subject to the alternate screening analysis.
 - b. A specific emission inspection procedure to assure that the ~~e~~Engine is operated in compliance with the provisions of this rule. Inspections shall be conducted every quarter or after every 2,000 hours of ~~e~~Engine operations whichever is less, but in no case less than quarterly.
 - c. A description and schedule of preventative maintenance procedures or practices which will be used to maintain the ~~e~~Engine(s) in compliance with the provisions of this rule.

- (3) ~~Data Gathering/Retrieval Capability~~—Any monitoring system shall have data gathering and retrieval capability approved by the APCO. Data shall be maintained for at least ~~two~~five (5) years and made available for inspection by the APCO. [as per USEPA evaluation, LA/LD (69 FR 21482, 04/21/2004)]

(~~FE~~) Equipment ~~and Compliance Testing~~ Requirements

- (1) All ~~Engines~~ICEs subject to this rule shall:
 - (a) ~~Elapsed Time Meter~~—Have an operational, non-resettable totalizing time (in hours) meters, to determine the ~~Engines~~ICE's elapsed operating time.
 - (b) ~~Fuel Meter~~—Have a non-resettable fuel meter or acceptable alternative as approved by the APCO, CARB and USEPA, to determine fuel consumption. [CARB and USEPA approval added as per Kevin Gong, USEPA, email dated 08/14/18, #5]
 - (c) ~~Compliance Testing~~—Provide source test information regarding the exhaust gas; specifically for NO_x, VOC reported as methane, and CO concentrations (concentrations in ppm by volume, corrected to 15 percent oxygen on dry basis) according to the following schedule:

- ~~(i) Once each 8,760 hours of operation or once every twenty four (24) months whichever period is shorter;~~
- ~~(ii) Compliance testing shall be conducted under conditions that are typical of normal engine load and duty cycle~~
- ~~(iii) The compliance test shall be conducted and the report received at the District not less than 90 days prior to the ICE's permit renewal date [moved to new (F)(1).]~~

(F) Compliance Test Requirements and Methods *[Compliance Test Methods were moved from (H) and Compliance Testing Requirements were moved from previous section (F)(1)(c).]*

(1) The owner/operator of any engine subject to this rule shall:

(a) Provide source test information regarding the exhaust gas; specifically for NO_x, VOC reported as methane and CO concentrations (concentrations in ppm by volume, corrected to 15% oxygen on dry basis) according to the following schedule:

- ~~(i) Once each 8,760 hours of operation or once every 24 months whichever period is shorter;~~
- ~~(ii) Compliance testing shall be conducted under conditions that are typical of normal Engine load and duty cycle~~
- ~~(iii) The compliance test shall be conducted and the report received at the District not less than 90 days prior to the Engines permit renewal date~~
[Moved from previous section (F)(1)(c).]

(b) Conduct testing to verify compliance in accordance with the following test methods:

- ~~(i) NO_x emissions subject to the provisions of this rule shall be determined by the procedure detailed in EPA Test Method 7E.~~
- ~~(ii) CO emissions by EPA Test Method 10.~~
- ~~(iii) VOC emissions by EPA Test Method 25, 25A or 25B.~~
- ~~(iv) Other test methods determined to be equivalent after review by the staffs of the District, California Air Resources Board, and the United States Environmental Protection Agency, and approved in writing by the APCO, may also be used to determine compliance with provisions of this rule.~~
[Moved from previous section (H). CARB acronym is identified in section (D)(1)(b)(ii)]

(G) Record Keeping and Reporting

- (1) ~~Record Keeping~~—**The owner/operator of any ~~Engine~~ICE shall maintain an ~~e~~Engine operating log on a monthly basis that includes: ~~on a monthly basis:~~

(a) The total hours of operation for each day of operation; and

- (b) Type and quantity of fuel used (liquid/gas); and
 - (c) The cumulative hours of operation since the last source test required in sub~~section~~~~paragraph~~ (F)(1)~~(e)~~; and
 - (d) The purpose or reason for operating the ~~E~~engine for each day of operation.
 - (e) The results of any screening analysis or alternative screening analysis if required pursuant to subsection (~~ED~~)(2).
- (2) ~~Reporting~~—Required records and data shall be available for inspection any time, remain at the ~~f~~Facility for ~~2~~five (5) years, and upon request, be submitted to the APCO at the end of each calendar year in a manner and form approved by the APCO. [As per USEPA evaluation, LA/LD (69FR21482, 04/21/2004)]

~~(H)~~—Compliance Test Methods

- ~~(1) —NOx emissions subject to the provisions of this rule shall be determined by the procedure detailed in EPA Test Method 7E.~~
- ~~(2) —CO emissions by EPA Test Method 10.~~
- ~~(3) —VOC emissions by EPA Test Method 25, 25A or 25B.~~
- ~~(4) —Other test methods determined to be equivalent after review by the staffs of the District, California Air Resources Board, and the United States Environmental Protection Agency, and approved in writing by the Air Pollution Control Officer, may also be used to determine compliance with provisions of this rule.~~ [Moved to section (F)(2) for better flow of Compliance requirements and test methods.]

~~(H)~~ Exemptions

- (1) The provisions of ~~sections~~~~paragraphs~~ (C), (D), (E), (F), and (G) ~~and (H)~~ shall not apply to:
 - ~~(a) —ICEs used directly and exclusively by the owner/operator for agricultural operations necessary for the growing of crops or raising of fowl or animals. [As per USEPA evaluation, LA/LD (69FR21482, 04/21/2004). The majority of Ag engines within the District have been electrified, those remaining are currently under Ag Registration]~~
 - ~~(ba)~~ Engines~~ICEs~~ operated for the purposes of performance verification and testing.

- (eb) Auxiliary Engines~~ICEs~~ used to power other Engines~~ICEs~~ or gas turbines during start-ups.
- (~~dc~~) Portable Engines~~ICEs~~ that are registered under the ~~California~~Statewide - ~~wide~~ Portable Equipment ~~RR~~Registration ~~PP~~rogram pursuant to Title 13, Article 5 of the CCRHealth & Safety Code §§ 41750 through 41755.
[Derived from SCAQMD Rule 1110.2, 06/03/16]
- (2) The provisions of sections~~paragraphs~~ (C), (D), ~~(E)~~, and (F)~~(1)(c), and (H)~~ shall not apply to:
 - (a) The operation of any Engine~~ICE~~ during the existence of any officially declared disaster or state of emergency.
 - (b) Emergency Engines and Engines used for fire-fighting and flood control. ~~and any other Emergency Engines approved by the Executive Director, ICEs which have permit conditions that limit operation less than to 200 hours or less per year, as determined by an elapsed operating time meter.~~
[Derived from SCAQMD Rule 1110.2, 02/01/2008 (74FR18995, 04/27/2009). In response to USEPA emai, #7, received 08/14/18, for clarification of meaning, the strikethrough verbiage in (b) will be removed.].
 - (c) Non-~~r~~Road ~~e~~Engines.
 - (~~ed~~) Laboratory Engines~~ICEs~~ used in research and testing purposes.[Subsection letter out of order.]
 - (~~fe~~) Supplemental ~~ICEs~~Engines which operate for the manufacture of snow ~~and/or operation of ski lifts, which have a Facility limit to operate 1200 hours or less~~ during seasonal operations (November 1 through April 15).[Ski lift operations have been electrified, therefore this exemption is no longer necessary for that function. Imposing a seasonal Facility limit removes the prior rule exemption, while providing a conservative regulatory threshold allowing for continued snow making operation. Electrification for snow manufacture is not available at this Facility. Correction of out of order subsection lettering.]

~~[SIP: Submitted as amended on 01/21/03 on 04/01/03; Submitted as amended 05/15/01 on 12/14/01; Submitted as amended 12/9/94 on 4/13/95; Submitted as adopted 8/3/90 on 4/5/91]~~
See SIP Table at www.avaqmd.ca.gov

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Appendix “B”

Public Notice Documents

1. Proof of Publication – Antelope Valley Press, 08/17/2018

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AFFIDAVIT OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles

NOTICE OF HEARING
AV RULE 1110.2

I am a citizen of the United States and a resident of the County aforesaid, I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the **Antelope Valley Press**, a newspaper of general circulation, printed and published daily in the **City of Palmdale**, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of October 24, 1931, Case Number 328601; Modified Case Number 657770 April 11, 1956; also operating as the Ledger-Gazette, adjudicated a legal newspaper June 15, 1927, by Superior Court decree No. 224545; also operating as the Desert Mailer News, formerly known as the South Antelope Valley Foothill News, adjudicated a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California on May 29, 1967, Case Number NOC564 and adjudicated a newspaper of general circulation for the **City of Lancaster**, State of California on January 26, 1990, Case Number NOC10714, Modified October 22, 1990; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

August 17, 2018

I certify (or declare) under penalty of perjury that
the fore-going is true and correct.



Signature

Dated: August 17, 2018
Executed at Palmdale, California

Antelope Valley Press

37404 SIERRA HWY., PALMDALE CA 93550
Telephone (661)267-4112/Fax (661)947-4870

The space above for filing stamp only

NOTICE OF HEARING

NOTICE IS HEREBY GIVEN that the Governing Board of the Antelope Valley Air Quality Management District (AVAQMD) will conduct a public hearing on September 18, 2018 at 10:00 am to consider the proposed amendments to Rule 1110.2 - Emissions from Stationary, Non-Road and Portable Internal Combustion Engines.

SAID HEARING will be conducted in the Governing Board Chambers, located at the AVAQMD office located at 43301 Division Street, Suite 206, Lancaster, CA 93935-4849 where all interested persons may be present and be heard. Copies of the proposed amended Rule 1110.2 - Emissions from Stationary, Non-Road and Portable Internal Combustion Engines and the Staff Report are on file and may be obtained at the AVAQMD office. Written comments may be submitted to Brad Banks, Executive Officer, at the above address no later than September 17, 2018 to be considered. If you have any questions you may contact Barbara Lodi at 861-723-8870 extension 23 or via email at blodi@avaqmd.ca.gov for further information. Traducción esta disponible por solicitud.

The proposed amendments to Rule 1110.2 - Emissions from Stationary, Non-Road and Portable Internal Combustion Engines are necessary to satisfy 42 U.S.C. §97611a (FCAA §102) which requires that ozone non-attainment areas implement RACT for sources that are subject to Control Technology Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for major sources of volatile organic compounds (VOCs) and oxides of nitrogen (NOx) which are ozone precursors.

Pursuant to the California Environmental Quality Act (CEQA), the AVAQMD has determined that a Categorical Exemption (Class 3 - 14 Cal. Code Reg. §15308) applies and has prepared a Notice of Exemption for this item.

Published: 8/17/18

AVAQMD

AUG 20 2018

RECEIVED

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Appendix “C”

Public Comments and Responses

1. USEPA comment email on AV Rule 1110.2, dated 08/14/2018.
2. USEPA comment email on AV Rule 1110.2, dated 09/07/2018.

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Barbara Lods

From: Gong, Kevin <Gong.Kevin@epa.gov>
Sent: Wednesday, August 15, 2018 12:19 PM
To: Barbara Lods; Bret Banks; Karen Nowak
Cc: Bushey, Douglas; Lo, Doris; Law, Nicole
Subject: RE: Amendment of AVAQMD Rule 1110.2 Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

Hi,

Per my phone conversation with Barbara today, please note the correct citation for the APCO discretion issue in item 5 below is (D)(1)(b)(iii), and not (D)(2)(b)(iii).

Thank you,

-Kevin

From: Gong, Kevin
Sent: Tuesday, August 14, 2018 4:29 PM
To: 'Barbara Lods' <blods@avaqmd.ca.gov>; 'bbanks@avaqmd.ca.gov' <bbanks@avaqmd.ca.gov>; 'k2nowak@mdaqmd.ca.gov' <k2nowak@mdaqmd.ca.gov>
Cc: Bushey, Douglas <bushey.douglas@epa.gov>; Lo, Doris <Lo.Doris@epa.gov>; Law, Nicole <law.nicole@epa.gov>
Subject: RE: Amendment of AVAQMD Rule 1110.2 Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

Hi Barbara, Bret, and Karen,

Thanks for talking with us today on the proposed rule language for Rule 1110.2. Here's a list of the items that we identified during our discussion.

1. Provide citation for other definitions used in this rule (but not defined) to Rule 102 or 1301.
2. Modify "Exempt Compounds" definition to be consistent with other rules.
3. Revise, if necessary, Emergency Engine definition to match CARB ATCM.
4. Provide justification on the types of units allowed to use the alternative emission limits in (C)(2).
5. Resolve APCO discretion to include EPA in approvals for alternative monitoring under (D)(1)(b)(ii) and (D)(1)(b)(iii), and for fuel monitoring requirements in (E)(1)(b).
6. Clarify in (D)(1)(a)(iv) that the reporting requirements in 40 CFR 60 are to the APCO, and NOT to the EPA Administrator.
7. Clarify the exemptions for Emergency Engines in (H). Currently, Emergency Engines are listed twice, and clarify if the 200 hour permit limit applies to whole list.

We can confirm that the only version of SCAQMD Rule 1110.2 that we have approved into the SIP is in fact the version from 2008. The TSD for that approval is attached here. Please let me know if you have any questions.

Thank you again,

-Kevin


Kevin Gong

1. Added verbiage to clarify definitions used in this rule but not defined.
2. Definition of Exempt Compound was changed to reflect the language agreed upon by USEPA legal, Douglas Bushey and AVAQMD legal Karen Nowak.
3. Definition is derived from SCAQMD Rule 1110.2, amended 02/01/08 (74 FR 18995).
4. Subsection (C)(2) was removed.
5. Verbiage changed to include CARB and USEPA.
6. Reporting requirements were clarified.
7. Exemption was clarified.

Barbara Lods

From: Gong, Kevin <Gong.Kevin@epa.gov>
Sent: Friday, September 7, 2018 1:31 PM
To: Barbara Lods
Cc: Bret Banks; Bushey, Douglas; Karen Nowak; Lo, Doris
Subject: RE: AV Rule 1110.2, D2

Hello Barbara,

1.  Thank you for reaching back out to us with new draft rule language addressing our requested changes. I think the only further note we have is that we believe the provisions for an Alternate Screening Analysis for <1000 bhp engines or >1000 bhp engines operated less than 2MM bhp-hr/year should also include CARB/EPA approval for the alternate scheme, as the criteria for approving such alternate screenings is not sufficiently bounded within the rule. This provision can be found in (D)(2)(b)(i). Other than that, we have no further approvability comments.

Thank you,

Kevin Gong

Rules Office, Air Division (AIR-4)
U.S. Environmental Protection Agency, Region 9
75 Hawthorne St. San Francisco, CA 94105
(415) 972-3073 | gong.kevin@epa.gov

1. Verbiage changed to include CARB and USEPA.

Appendix “D”
California Environmental Quality Act
Documentation

1. Notice of Exemption – Los Angeles County

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Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

AVAQMD

OCT 22 2018

RECEIVED

661.723.8070

NOTICE OF EXEMPTION

TO: Los Angeles County Clerk
12400 E. Imperial Hwy, #1001
Norwalk, CA 90650

FROM: Antelope Valley
Air Quality Management District
43301 Division Street, Suite 206
Lancaster, CA 93535-4649

☒ AVAQMD Senior Executive Analyst

PROJECT TITLE: Amendment of Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines*

PROJECT LOCATION – SPECIFIC: Los Angeles County portion of the Mojave Desert Air Basin.

PROJECT LOCATION – COUNTY: Los Angeles County

DESCRIPTION OF PROJECT: The proposed amendment of Rule 1110.2 – *Emissions from Stationary, Non-Road and Portable Internal Combustion Engines* will satisfy 42 U.S.C. §7511a (Federal Clean Air Act §182) which requires that ozone non-attainment areas implement Reasonably Available Control Technology (RACT) for sources that are subject to Control Techniques Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for “major sources” of volatile organic compounds (VOCs) and oxides of nitrogen (NOx) which are ozone precursors.

NAME OF PUBLIC AGENCY APPROVING PROJECT: Antelope Valley AQMD

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT: Antelope Valley AQMD

EXEMPT STATUS (CHECK ONE)

Ministerial (Pub. Res. Code §21080(b)(1); 14 Cal Code Reg. §15268)

Emergency Project (Pub. Res. Code §21080(b)(4); 14 Cal Code Reg. §15269(b))

☒ Categorical Exemption – Class 8 (14 Cal Code Reg. §15308)

REASONS WHY PROJECT IS EXEMPT: The proposed amendments to Rule 1110.2 are exempt from CEQA review because they will not create any adverse impacts on the environment. This rule has been strengthened by removing the agricultural exemption, reducing the Portable Compression-Ignited Engine limits, and limiting the number of hours allowed during seasonal operation for snow manufacturing. Because there is no potential that the amendments might cause the release of additional air contaminants or create any adverse environmental impacts, a Class 8 categorical exemption (14 Cal. Code Reg. §15308) applies. Copies of the documents relating to CEQA can be found in Appendix “D”.

LEAD AGENCY CONTACT PERSON: Bret Banks **PHONE:** (661) 723-8070

SIGNATURE: 

TITLE: Executive Director **DATE:** September 18, 2018

DATE RECEIVED FOR FILING:

2018 240906



FILED

Sep 21 2018

Dean C. Legar, Registrar – Recorder/County Clerk

Electronically signed by REG/RC CARR3303

THIS NOTICE WAS POSTED

ON September 21 2018

UNTIL October 22 2018

REGISTRAR – RECORDER/COUNTY CLERK



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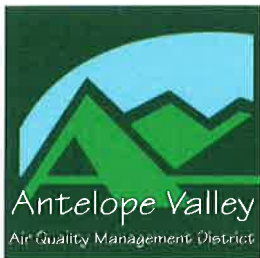
Appendix “E”

Bibliography

The following documents were consulted in the preparation of this staff report.

1. CARB Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion Engines.
2. SCAQMD Rule 1110.2 – *EMISSIONS FROM GASEOUS AND LIQUID FUELED ENGINES*, 02/01/2008, (74 FR 18995, 04/27/2009)
3. MDAQMD Rule 1160 – *Internal Combustion Engines*, 01/22/18

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Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070

October 11 2018

Carol Sutkus
State of California
Environmental Protection Agency
Air Resources Board
P. O. Box 2815
Sacramento, California 95812

Project Title: Amendment of AVAQMD Rule 1171 – *Solvent Cleaning Operations*

Dear Ms. Sutkus:

The Antelope Valley Air Quality Management District (AVAQMD) requests that the California Air Resources Board submit amended Rule 1171 – *Solvent Cleaning Operations*, to the United States Environmental Protection Agency (USEPA) for inclusion in the State Implementation Plan (SIP).

The amendment of Rule 1171 is necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors.

The District requests CARB submit to USEPA the proposed amendment of Rule 1171 to replace the SIP version in effect in the AVAQMD. The District also requests removal of all prior versions of South Coast Air Quality Management District Rule 1171 – *Solvent Cleaning*.

If you have any questions regarding this submittal, please contact me at (661) 723-8070, extension 22, or Barbara Lods at extension 23. Please note that all documents required for a complete submission were sent electronically on 10/09/2018.

Sincerely,

A handwritten signature in black ink, appearing to read "Bret Banks". The signature is stylized with loops and a long horizontal stroke.

Bret Banks
Executive Director

BSB/bjl

CARB SIP Submittal Request AV Rule 1171 08212018

CALIFORNIA AIR RESOURCES BOARD

SIP COMPLETENESS CHECKLIST
(Electronic Format)

*** TO BE COMPLETED BY DISTRICT AND RETURNED TO ARB ***

All rules submitted to the EPA as State Implementation Plan (SIP) revisions must be supported by certain information and documentation for the rule packages to be deemed complete for review by the EPA. Rules will not be evaluated for approvability by the EPA unless the submittal packages are complete. To assist you in determining that all necessary materials are included in rules packages sent to the ARB for submittal to the EPA, please fill out the following form and include it with the rule package you send ARB. See the ARB's Guidelines on the Implementation of the 40 CFR 51, Appendix V, for a more detailed explanation than is provided here. Adopted rules and rule amendments should be checked against U.S. EPA's Guidance Document for Correcting Common VOC & Other Rule Deficiencies (Little Blue Book, August 21, 2001) to ensure that they contain no elements which will result in disapproval by EPA.

District: Antelope Valley Air Quality Management District

Rule No: 1171

Rule Title: Solvent Cleaning Operations

Date Adopted or Amended: Amended 08/21/2018

ADMINISTRATIVE MATERIALS

Note: All documents should be in electronic format. Items that have signatures, initials, or stamps may be scanned.

<u>Attached</u>	<u>Not Attached</u>	<u>N/A</u>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>COMPLETE COPY OF THE RULE:</u> Provide an unmarked copy of the entire rule as adopted or amended by your District Board.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>UNDERLINE AND STRIKEOUT COPY OF THE RULE:</u> If an amended rule, provide a complete copy of the rule indicating in underline and strikeout format all language which has been added, deleted, or changed since the rule was last adopted or amended. (See Staff Report Appendix A)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>COMPLETE COPY OF THE REFERENCED RULE(S):</u> For any rule which includes language specifically referencing another rule, a copy of that other rule must also be submitted, unless it has already been submitted to EPA as part of a previous SIP submittal.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>PUBLIC NOTICE EVIDENCE:</u> Include a copy of the local newspaper clipping certification(s), stating the date of publication, which must be at least 30 days before the hearing. As an alternative, include a copy of the actual published notice of the public hearing as it appeared in the local newspaper(s). In this case, however, enough of the newspaper page must be included to show the date of publication. The notice must specifically identify by title and number each rule adopted or amended. (See Staff Report Appendix B)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>RESOLUTION/MINUTE ORDER:</u> Provide the Board Clerk certified resolution or minute order. This document must include certification that the hearing was held in accordance with the information in the public notice. It must also list the rules that were adopted or amended, the date of the public hearing, and a statement of compliance with California Health and Safety Code Sections 40725-40728 (Administrative Procedures Act).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>PUBLIC COMMENTS AND RESPONSES:</u> Submit copies of written public comments made during the notice period and at the public hearing. Also submit any written responses prepared by the District staff or presented to the District Board at the public hearing. A summary of the public comments and responses is adequate. If there were no comments made during the notice period or at the hearing, please indicate N/A to the left. (See Staff Report Appendix C)

SIP COMPLETENESS CHECKLIST
(Electronic Format)

*** TO BE COMPLETED BY DISTRICT AND RETURNED TO ARB ***

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>RULE EVALUATION FORM:</u> See instructions for completing the Rule Evaluation Form and the accompanying sample form. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>NON-EPA TEST METHODS:</u> Attach all test methods that are referenced in your rule that do not appear in 40 CFR 51, 60, 61, 63, or have not been previously submitted to EPA. EPA methods used in other media such as SW846 for solid waste are not automatically approved for air pollution applications. Submittal of test methods that are not EPA-approved should include the information and follow the procedure described in Region 9's "Test Method Review & Evaluation Process." |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>MODELING SUPPORT:</u> Provide if appropriate. In general, modeling support is not required for VOC and NOx rules to determine their impacts on ozone levels. Modeling is required where a rule is a relaxation that affects large sources (≥ 100 TPY) in an attainment area for SO ₂ , directly emitted PM ₁₀ , CO, or NO _x (for NO ₂ purposes). In cases where EPA is concerned with the impact on air quality of rule revisions which relax limits or cause a shift in emission patterns in a nonattainment area, a reference back to the approved SIP will be sufficient provided the approved SIP accounts for the relaxation and provided the approved SIP used the current EPA modeling guidelines. If current EPA modeling guidelines were not used, then new modeling may be required. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <u>ECONOMIC AND TECHNICAL JUSTIFICATION FOR DEVIATIONS FROM EPA POLICIES:</u> The District staff report or other information included with the submittal should discuss all potential relaxations or deviations from RACT, RACM, BACT, BACM, enforceability, attainment, RFP, or other relevant EPA requirements. This includes, for example, demonstrating that exemptions or emission limits less stringent than the presumptive RACT (e.g., a CTG) meet EPA's 5 percent policy, and demonstrating that all source categories exempted from a RACM/BACM rule are de minimus according to EPA's RACM/BACM policy. (See Staff Report) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>ADDITIONAL MATERIALS:</u> Provide District staff reports and any other supporting information concerning development of the rule or rule changes. This information should explain the basis for all limits and thresholds contained in the rule. |

APCD/AQMD RULE EVALUATION FORM – Page 1
(Electronic Format)**I. GENERAL INFORMATION**District: Antelope Valley Air Quality Management DistrictRule No(s): 1171 Date adopted/Amended/Rescinded: Amended 08/21/2018Rule Title(s): Solvent Cleaning OperationsDate Submitted to ARB: 10/09/2018If an Amended Rule, Date Last Amended (or Adopted): Date last amended 11/17/1998Is the Rule Intended to be Sent to the U.S. EPA as a SIP Revision? ☒ Yes ☐ No (If No, do not complete remainder of form)District Contact: Barbara Lods Phone Number: (661)723-8070 x23 E-mail Address: blods@avaqmd.ca.govNarrative Summary of New Rule or Rule Changes: ☐ New Rule ☒ Amended Rule

The amendments to Rule 1171 are necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors.

Pollutant(s) Regulated by the Rule (Check): ☒ ROG ☐ (NOx) ☐ SO2
☐ (CO) ☐ PM ☐ TAC (name): _____**II. EFFECT ON EMISSIONS**

Complete this section ONLY for rules that, when implemented, will result in quantifiable changes in emissions. Attach reference(s) for emission factor(s) and other information. Attach calculation sheet showing how the emission information provided below was determined.

Net Effect on Emissions: ☐ Increase ☐ Decrease ☒ N/AEmission Reduction Commitment in SIP for this Source Category: N/AInventory Year Used to Calculate Changes in Emissions: N/A Area Affected: N/aFuture Year Control Profile Estimate (Provide information on as many years as possible):
N/A

APCD/AQMD RULE EVALUATION FORM - Page 2
(Electronic Format)

Baseline Inventory in the SIP for the Control Measure: N/A

Emissions Reduction Commitment in the SIP for the Control Measure: N/A

Revised Baseline Inventory (if any): N/A

Revised Emission Reduction Estimate (if developed): N/A

Note that the district's input to the Rule Evaluation Form will not be used as input to the ARB's emission forecasting and planning.

III. SOURCES/ATTAINMENT STATUS

District is: ☐ Attainment ☒ Nonattainment ☐ Split

Approximate Total Number of Small (<100 TPY) Sources Affected by this Amendment: 2

Percent in Nonattainment Area: 100%

Number of Large (\geq 100 TPY) Sources Controlled: 0 Percent in Nonattainment Area: 0%

Name(s) and Location(s) (city and county) of Large (\geq 100 TPY) Sources Controlled by Rule *(Attach additional sheets as necessary)*: N/A

IV. EMISSION REDUCTION TECHNOLOGY

Does the Rule Include Emission Limits that are Continuous? ☐ Yes ☒ No

If Yes, Those Limits are in Section(s) N/A of the Rule.

Other Methods in the Rule for Achieving Emission Reductions are: stronger storage and disposal practices, improving rule enforceability, cleaning method requirements.

V. OTHER REQUIREMENTS

The Rule Contains:

Emission Limits in Section(s): C Work Practice Standards in Section(s): N/A

Recordkeeping Requirements in Section(s): D Reporting Requirements in Section(s): N/A

APCD/AQMD RULE EVALUATION FORM - Page 3
(Electronic Format)

VI. IMPACT ON AIR QUALITY PLAN

☒ No Impact ☐ Impacts RFP ☐ Impacts attainment

Discussion: The District does not anticipate any potential environmental impacts of compliance with the proposed amendments to Rule 1171. Rule 1171 will enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

**MINUTES OF THE GOVERNING BOARD
OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT
LANCASTER, CALIFORNIA**

AGENDA ITEM #11

DATE: August 21, 2018

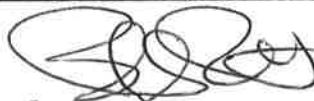
RECOMMENDATION: Conduct a continued public hearing to consider the amendment of Rule 1171 – *Solvent Cleaning Operations*: a. Re-open the continued public hearing; b. Receive supplemental staff report and/or staff update; c. Receive public testimony; d. Close public hearing; e. Make a determination that the CEQA Categorical Exemption applies; f. Waive reading of Resolution; g. Adopt Resolution making appropriate findings, certifying the Notice of Exemption amending Rule 1171 – *Solvent Cleaning Operations* and directing staff actions.

SUMMARY: Rule 1171 is proposed for amendment to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

BACKGROUND: The Antelope Valley Air Pollution Control District (AVAPCD) was created by statute on July 1, 1997, with a jurisdiction of the Los Angeles County portion of the South Coast Air Quality Management District (SCAQMD) that was not within the South Coast Air Basin. SCAQMD rules in effect in the AVAPCD remained in effect until the AVAPCD Governing Board superseded or amended them. On January 1, 2002 the AVAQMD was formed pursuant to statute (Health & Safety Code §§41300 et seq.) to replace the AVAPCD. The rules of the AVAPCD also remain in effect until the AVAQMD Governing Board supersedes or amends them.

The Federal Clean Air Act (FCAA) requires areas designated non-attainment and classified moderate and above to implement Reasonably Available Control Technology (RACT) for sources subject to Control Technique Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for “major sources” of Volatile Organic Compounds (VOCs) and Oxides of Nitrogen (NO_x) which are ozone precursors. The District adopted the *8-Hour Reasonably Available Control Technology – State Implementation Plan Analysis (RACT SIP Analysis)* in July 2015 for the 2008, 75 ppb ozone National Ambient Air Quality Standards (NAAQS). This document committed to amending Rule 1171 to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

Cc: Barbara Lods



I, _____
CUSTODIAN OF RECORDS OF ANTELOPE VALLEY AIR
QUALITY MANAGEMENT DISTRICT, HEREBY CERTIFY
THE FORGOING TO BE A FULL, TRUE AND CORRECT
COPY OF THE RECORD OF THE ACTION AS THE SAME
APPEARS IN THE OFFICIAL MINUTES OF SAID
GOVERNING BOARD MEETING.

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT.

**MINUTES OF THE GOVERNING BOARD
OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT
LANCASTER, CALIFORNIA**

AGENDA ITEM #11

PAGE 2

This rule is subject to the CTG's titled *Industrial Cleaning Solvents (EPA-453/R-06-001, September 2006)*. The AVAQMD is now proposing to amend Rule 1171 – *Solvent Cleaning Operations* to reflect current federal RACT.

Rule 1171 was originally adopted on 08/02/91 by the SCAQMD and subsequently amended on 05/12/95, 09/13/96, and 06/13/97. The version of Rule 1171, as amended by SCAQMD on 06/13/97, was the initial rule of the AVAPCD. On 11/17/98 the AVAPCD amended Rule 1171. The 11/17/98 version is the current version in the AVAQMD rule book.

AVAQMD submitted the 11/17/98 version of Rule 1171 for inclusion to the SIP. USEPA finalized approval on 05/24/01 (66 FR 28666).

The proposed amendment of Rule 1171 – *Solvent Cleaning Operations* addresses the 2015 *RACT SIP Analysis* commitment to amend Rule 1171 and also addresses work practices, adjusting categories for consistency with source specific rules, reducing VOC limits and addressing the alternative composite vapor pressure. The proposed amendments are based on the CTG, South Coast Air Quality Management District Rule 1171 - *Solvent Cleaning Operations*, amended 02/01/08, Yolo-Solano AQMD Rule 2.31 – *Solvent Cleaning and Degreasing*, amended 04/12/17, and San Joaquin Valley Air Pollution Control District Rule 4663 - *Organic Solvent Cleaning Storage and Disposal*, amended 09/20/07 and Rule 4605 - *Aerospace Assembly and Component Manufacturing Operations*, amended 06/16/11.

This item was noticed for the July 17, 2018 Governing Board meeting. The item was continued to the August 21, 2018 meeting to address substantive comments from USEPA.

A Notice of Exemption, Categorical Exemption (Class 8; 14 Cal. Code Reg. §15308) will be prepared by the AVAQMD for the amendment of Rule 1171 pursuant to the requirements of CEQA.

REASON FOR RECOMMENDATION: Health & Safety Code §§40702 and 40703 require the Governing Board to hold a public hearing before adopting rules and regulations. Also, 42 U.S.C. §7410(l) (FCAA §110(l)) requires that all SIP revisions be adopted after public notice and hearing.

REVIEW BY OTHERS: This item was reviewed as to legal form by Karen Nowak, District Counsel and by Bret Banks, Executive Director on or before August 6, 2018.

FINANCIAL DATA: No increase in appropriation is anticipated.

PRESENTER: Bret Banks, Executive Director

**MINUTES OF THE GOVERNING BOARD
OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT
LANCASTER, CALIFORNIA**

AGENDA ITEM #11

PAGE 3

ACTION OF THE GOVERNING BOARD

APPROVED

Upon motion by **NEWTON CHELETTE**, seconded by **AUSTIN BISHOP**, as approved by the following vote:

**Ayes 6 CRIST, BISHOP, CHELETTE, HARRIS, HOFBAUER,
 MANN**

Noes:

Absent:

Abstain:

Recuse: 1 HAWKINS

DEANNA HERNANDEZ, SENIOR EXECUTIVE ANALYST

BY  _____

Dated: August 21, 2018

Ref. Resolution 18-04, "A RESOLUTION OF THE GOVERNING BOARD OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT MAKING FINDINGS, CERTIFYING THE NOTICE OF EXEMPTION, AMENDING RULE 1171-SOLVENT CLEANING OPERATIONS AND DIRECTING STAFF ACTIONS."

RESOLUTION 18-04

A RESOLUTION OF THE GOVERNING BOARD OF THE ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT MAKING FINDINGS, CERTIFYING THE NOTICE OF EXEMPTION, AMENDING RULE 1171-SOLVENT CLEANING OPERATIONS AND DIRECTING STAFF ACTIONS.

On, August 21, 2018, on motion by Member NEWTON CHELETTE, seconded by Member AUSTIN BISHOP, and carried, the following resolution is adopted:

WHEREAS, the Antelope Valley Air Quality Management District (AVAQMD) has authority pursuant to California Health and Safety Code (H&S Code) §§40702, 40725-40728 to adopt, amend or repeal rules and regulations; and

WHEREAS, the Antelope Valley Air Pollution Control District (AVAPCD) was created by statute on July 1, 1997, with a jurisdiction of the Los Angeles County portion of the South Coast Air Quality Management District (SCAQMD) that was not within the South Coast Air Basin; and

WHEREAS, SCAQMD rules in effect in the AVAPCD remained in effect until the AVAPCD Governing Board superseded or amended them; and

WHEREAS, on January 1, 2002 the AVAQMD was formed pursuant to statute (H&S Code §§41300 et seq) to replace the AVAPCD; and

WHEREAS, the rules of the AVAPCD also remain in effect until the AVAQMD Governing Board supersedes or amends them; and

WHEREAS, the Federal Clean Air Act (FCAA) requires areas designated non-attainment and classified moderate and above to implement Reasonably Available Control Technology (RACT) for sources subject to Control Technique Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for "major sources" of Volatile Organic Compounds (VOCs) and Oxides of Nitrogen (NO_x) which are ozone precursors; and

WHEREAS, the District adopted the *8-Hour Reasonably Available Control Technology - State Implementation Plan Analysis (RACT SIP Analysis)* in July 2015 for the 2008, 75 ppb ozone National Ambient Air Quality Standards (NAAQS); and

WHEREAS, this document committed to amending Rule 1171 to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure; and

RESOLUTION 18-04

1 **WHEREAS**, this rule is subject to the CTG titled *Control Techniques Guidelines: Industrial*
2 *Cleaning Solvents*, (EPA-453/R-06-001, September 2006; and

3 **WHEREAS**, the AVAQMD is now proposing to amend Rule 1171 – *Solvent Cleaning*
4 *Operations* to reflect current federal RACT; and

5 **WHEREAS**, rule 1171 was originally adopted on 08/02/91 by the SCAQMD and subsequently
6 amended on 05/12/95, 09/13/96, and 06/13/97; and

7 **WHEREAS**, the version of Rule 1171, as amended by SCAQMD on 06/13/97, was the initial rule
8 of the AVAPCD; and

9 **WHEREAS**, on 11/17/98 the AVAPCD amended Rule 1171; and

10 **WHEREAS**, the 11/17/98 version is the current version in the AVAQMD rule book; and

11 **WHEREAS**, AVAQMD submitted the 11/17/98 version of Rule 1171 for inclusion to the SIP;
12 and

13 **WHEREAS**, USEPA finalized approval of the 11/17/98 version of Rule 1171 on 05/24/01 (66 FR
14 28666); and

15 **WHEREAS**, the proposed amendment of Rule 1171 – *Solvent Cleaning Operations* addresses the
16 2015 *RACT SIP Analysis* commitment; and

17 **WHEREAS**, the proposed amendments are based on the Control Technique Guidelines: Industrial
18 *Cleaning Solvents*, South Coast Air Quality Management District Rule 1171 - *Solvent Cleaning*
19 *Operations*, amended 02/01/08, Yolo-Solano AQMD Rule 2.31 – *Solvent Cleaning and Degreasing*,
20 amended 04/12/17, and San Joaquin Valley Air Pollution Control District Rule 4663 - *Organic Solvent*
21 *Cleaning Storage and Disposal*, amended 09/20/07 and Rule 4605 - *Aerospace Assembly and Component*
22 *Manufacturing Operations*, amended 06/16/11; and

23 **WHEREAS** this item was noticed for the July 17, 2018 Governing Board meeting, and

24 **WHEREAS**, the item was continued to the August 21, 2018 meeting to address substantive
25 comments from USEPA, and

26 **WHEREAS** the District has the authority pursuant to California Health and Safety Code (H&S
27 Code) §40702 to adopt, amend or repeal rules and regulations; and

28 //

RESOLUTION 18-04

1 **WHEREAS**, the proposed amendments to Rule 1171 are clear in that they are written so that the
2 persons subject to the rule can easily understand the meaning; and

3 **WHEREAS**, the proposed amendments to Rule 1171 are in harmony with, and not in conflict
4 with or contradictory to any state law or regulation, federal law or regulation, or court decisions; and

5 **WHEREAS**, the proposed rule is consistent with the CTG provisions and other District rules
6 deemed to meet RACT; and

7 **WHEREAS**, the proposed amendments do not impose the same requirements as any existing state
8 or federal regulation because CTGs are primarily guidance documents and not enforceable in and of
9 themselves and a rule is necessary to implement the applicable provisions of these documents; and

10 **WHEREAS**, a public hearing has been properly noticed and conducted, pursuant to H&S Code
11 §40725, concerning the proposed amendments to Rule 1171; and

12 **WHEREAS**, a Notice of Exemption, a Categorical Exemption (Class 8, 14 CCR §15308) for the
13 proposed amendments to Rule 1171, completed in compliance with the California Environmental Quality
14 Act (CEQA), has been presented to the AVAQMD Board; each member having reviewed, considered and
15 approved the information contained therein prior to acting on the proposed amendments to Rule 1171, and
16 the AVAQMD Board having determined that the proposed amendments will not have any potential for
17 resulting in any adverse impact upon the environment; and

18 **WHEREAS**, the Board has considered the evidence presented at the public hearing; and

19 **NOW, THEREFORE, BE IT RESOLVED**, that the Governing Board of the AVAQMD finds
20 that the proposed amendments to Rule 1171 – *Solvent Cleaning Operations* are necessary, authorized,
21 clear, consistent, non-duplicative and properly referenced; and

22 **BE IT FURTHER RESOLVED**, that the Governing Board of the AVAQMD hereby makes a
23 finding that the Class 8 Categorical Exemption (14 CCR §15308) applies and certifies the Notice of
24 Exemption for the proposed amendments to Rule 1171; and

25 **BE IT FURTHER RESOLVED**, that the Board of the AVAQMD does hereby adopt, pursuant to
26 the authority granted by law, the proposed amendments to Rule 1171, as set forth in the attachments to
27 this resolution and incorporated herein by this reference; and

28 //

RESOLUTION 18-04

BE IT FURTHER RESOLVED, that this resolution shall take effect immediately upon adoption, that the Senior Executive Analyst is directed to file the Notice of Exemption in compliance with the provisions of CEQA.

PASSED, APPROVED AND ADOPTED by the Governing Board of the Antelope Valley Air Quality Management District by the following vote:

AYES: 6 MEMBER: CRIST, BISHOP, CHELETTE, HARRIS, HOFBAUER, MANN

NOES: MEMBER:

ABSENT: MEMBER:

ABSTAIN: MEMBER:


RECUSE: 1 MEMBER: HAWKINS

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

SS:

I, Deanna Hernandez, Senior Executive Analyst of the Antelope Valley Air Quality Management District, hereby certify the foregoing to be a full, true and correct copy of the record of the action as the same appears in the Official Minutes of said Governing Board at its meeting of August 21, 2018.


Senior Executive Analyst
Antelope Valley Air Quality Management District.

RULE 1171

Solvent Cleaning Operations

(A) General

(1) Purpose

- (a) The purpose of this rule is to limit emissions of Volatile Organic Compounds (VOCs) from Solvent Cleaning operations and activities, and from the storage and disposal of these materials used for such operations.

(2) Applicability

- (a) This rule applies to all Persons who use VOC-containing materials in Solvent Cleaning operations during the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas, and to all Persons who store and dispose of VOC-containing materials used in Solvent Cleaning.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) “Aerosol Product” - A hand-held, non-refillable container which expels pressurized product by means of a propellant-induced force.
- (2) “Aerospace Vehicle or Components” - Any fabricated part, processed part, assembly of parts or completed unit, with the exception of electronic components, of any Aircraft or Space Vehicle, including, but not limited to, integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons.
- (3) “Aircraft” - Any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles.
- (4) “Air Pollution Control Officer (APCO)” - The Person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of the California Health & Safety Code §40750, and his or her designee.
- (5) “Application Equipment” - A device used to apply adhesive, coating, ink, or polyester resin materials.
- (6) “Cured Coatings, Cured Inks, and Cured Adhesives” - Coatings, inks, and adhesives which are dry to the touch.

- (7) “District” - The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103.
- (8) “Electrical Apparatus Components” - All internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in apparatus that generates or transmits electrical energy including, but not limited to generators, transformers, and electric motors.
- (9) “Electronic Components” - All portions of an assembly, including circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the actual cabinet in which the components are housed.
- (10) “Exempt Compounds” - Those compounds listed as excluded from the definition of volatile organic compounds in 40 CFR 51.100(s).
- (11) “Facility” - A business or businesses engaged in Solvent Cleaning Operations which are owned or operated by the same Person or Persons and are located on the same or contiguous parcels.
- (12) “Grams of VOC Per Liter Of Material” - The weight of VOC per volume of material, calculated by the following equation:

$$\text{Grams of VOC per liter of material} = \frac{W_s - W_w - W_{ec}}{Vm}$$

Where:

W_s	=	Weight of volatile compounds in grams
W_w	=	Weight of water in grams
W_{ec}	=	Weight of Exempt Compounds in grams
V_m	=	Volume of material in liters

- (13) “High Precision Optics” - Optical elements used in electro-optical devices which are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.
- (14) “Janitorial Cleaning” - The cleaning of building or Facility components, such as floors, ceilings, walls, windows, doors, stairs, bathrooms, etc.
- (15) “Liquid Leak” - The visible liquid solvent leak from the container at a rate of more than three (3) drops per minute, or a visible liquid mist.
- (16) “Manufacturing Process” - The process of making goods or articles by hand or by machinery.
- (17) “Medical Device” - An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory, that meets one of the following conditions:
 - (a) Is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease; or
 - (b) Is intended to affect the structure or any function of the body; or

- (c) Is defined in the National Formulary or the United States Pharmacopeia, or any supplement to them.
- (18) “Non-Absorbent Containers” - Containers made of nonporous material which does not allow the migration of the liquid Solvent through them.
- (19) “Non-Atomized Solvent Flow” - The use of a solvent in the form of a liquid stream without atomization to remove uncured adhesives, uncured inks, uncured coatings, and contaminants from an article.
- (20) “Non-Leaking Containers” - Containers without Liquid Leaks.
- (21) “Person” - Any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or other capacity including any governmental entity or charitable organization.
- (22) “Pharmaceutical Facility” - Any facility producing or blending chemicals for use in pharmaceutical products and/or employing chemical processes in the manufacture of pharmaceutical products or medical devices. Pharmaceutical facilities may include, but are not limited to, establishments primarily engaged in manufacturing, fabricating, or processing medicinal chemicals and pharmaceutical products for human or veterinary use.
- (23) “Remote Reservoir Cleaner” - A cleaning device in which liquid solvent is pumped from a solvent container to a sink-like work area and the solvent from the sink-like area drains into an enclosed solvent container while parts are being cleaned.
- (24) “Repair and Maintenance Cleaning” - A Solvent Cleaning Operation or activity carried out to:
- (a) Return a damaged object or an object not operating properly to good condition; or
 - (b) Maintain tools, machinery equipment (excluding Application Equipment) or general work areas, in clean and good operational condition.
- (25) “Scientific Instruments” - Instruments (including the components, assemblies, and subassemblies used in their manufacture) and associated accessories and reagents which are used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.
- (26) “Screen Printing” - A process in which ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.
- (27) “Solvent” - A VOC-containing liquid used to perform Solvent Cleaning.
- (28) “Solvent Cleaning” - The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process, which consists of a series of cleaning methods, shall constitute a separate Solvent Cleaning operation.

- (29) “Solvent Flushing” - The use of a Solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of the equipment by flushing Solvent through the equipment.
- (30) “Space Vehicle” - A vehicle designed to travel beyond earth's atmosphere.
- (31) “Sterilization Indicating Ink” - Ink that changes color to indicate that sterilization has occurred. Such ink is used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage.
- (32) “Stripping” - The removal of Cured Coatings, Cured Inks, and Cured Adhesives.
- (33) “Surface Preparation” - The removal of contaminants such as dust, soil, oil, grease, etc., prior to coating, adhesive, or ink applications.
- (34) “United States Environmental Protection Agency (USEPA)” - The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.
- (35) “VOC Composite Partial Pressure” - The sum of the partial pressures of the compounds defined as VOCs. VOC Composite Partial Pressure is calculated as follows:

$$PP_C = \frac{\sum_{i=1}^n \frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

W_i	=	Weight of the "i"th VOC compound, in grams
W_w	=	Weight of water in grams
W_e	=	Weight of exempt compound, in grams
MW_i	=	Molecular weight of the "i"th VOC compound, in grams per gram-mole
MW_w	=	Molecular weight of water, in grams per gram-mole
MW_e	=	Molecular weight of exempt compound, in grams per gram-mole
PP_C	=	VOC Composite Partial Pressure at 20°C, in mm Hg
VP_i	=	Vapor pressure of the "i"th VOC compound at 20°C, in mm Hg

- (36) “Volatile Organic Compound (VOC)” - Any volatile compound of carbon, excluding Exempt Compounds.
- (37) “Wipe Cleaning” - The method of cleaning a surface by physically rubbing it with a material such as a rag, paper, sponge or a cotton swab moistened with a Solvent.

(C) Requirements

(1) Solvent Requirements

- (a) A Person shall not perform Solvent Cleaning unless the Solvent complies with the applicable requirements set forth below or:

Solvent Cleaning Activity			VOC Content Limit* grams/liter (lb/gal)
			Limit
(i) Product Cleaning During Manufacturing Process or Surface Preparation for Adhesive, Coatings or Ink Application	General		50 (0.42)
	Electrical Components and Electronic Apparatus Components		100 (0.83)
	Medical Devices & Pharmaceuticals		800 (6.7)
(ii) Repair and Maintenance Cleaning	General		50 (0.42)
	Electrical Components and Electronic Apparatus Components		100 (0.83)
	Medical Devices & Pharmaceuticals	Tools, Equipment & Machinery	800 (6.7)
		General Work Surface	600 (5.0)
(iii) Cleaning of Adhesives or Coating Application Equipment	General		50 (0.42)
	Aerospace Vehicle or Component		200 (1.67) or 45 mmHg
(iv) Cleaning of Ink Application Equipment	General		50 (0.42)
	Screen Printing		100 (0.83)
(v) Cleaning of Polyester Resin Application Equipment			50 (0.42)

*For Aerospace Vehicle or Components, the solvent must comply with either the VOC Content limit in grams/liter (g/l) or the VOC Composite Partial Pressure limit in millimeters mercury (mmHg).

- (b) Has a VOC Composite Partial Pressure of 8 mmHg at 20° C (68° F), calculated using the equation in subsection (B)(35) of this rule:

- (i) Except for Cleaning of Ink Application Equipment, Screen Printing, which has a VOC Composite Partial Pressure of 5 mmHg at 20° C (68° F).

(2) Cleaning Devices and Methods Requirements

- (a) A Person shall not perform Solvent Cleaning unless one of the following cleaning devices or methods is used:
 - (i) Wipe Cleaning;
 - (ii) Cleaning within closed containers or by using hand held spray bottles from which Solvents are applied without a propellant-induced force;
 - (iii) Cleaning equipment which has a Solvent container that is closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during nonoperation with the exception of maintenance and repair to the cleaning equipment itself;
 - (iv) Remote Reservoir Cleaner used pursuant to the provisions of subsection (C)(3);
 - (v) Non-Atomized Solvent Flow method where the cleaning Solvent is collected in a container or a collection system which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or
 - (vi) Solvent Flushing method where the cleaning Solvent is discharged into a container which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged Solvent from the equipment must be collected into containers without atomizing into the open air. The Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.
- (b) A Person shall not atomize any Solvent unless it is vented to an air pollution control equipment which meets the requirements of subsection (C)(5).
- (c) A Person shall not specify or require any Person to use Solvent or equipment subject to the provisions of this rule that does not meet the requirements of this rule.

(d) A Person shall not perform Solvent Cleaning activities or operations subject to the provisions of this rule with any material which contains any of the following compounds:

- 1,1,1-trichloroethane (methyl chloroform);
- trichlorofluoromethane (CFC-11);
- dichlorodifluoromethane (CFC-12);
- 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
- 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
- chloropentafluoroethane (CFC-115);
- ethylfluoride (HFC-161);
- 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
- 1,1,2,2,3-pentafluoropropane (HFC-245ca);
- 1,1,2,3,3-pentafluoropropane (HFC-245ea);
- 1,1,1,2,3-pentafluoropropane (HFC-245eb);
- 1,1,1,3,3-pentafluoropropane (HFC-245fa);
- 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
- 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
- chlorofluoromethane (HCFC-31);
- 1-chloro-1-fluoroethane (HCFC-151a); or
- 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a).

(3) Remote Reservoir Cleaners

(a) Any Person owning or operating a Remote Reservoir Cleaner shall comply with all of the following requirements, in addition to the VOC limits for Repair and Maintenance Cleaning specified in subsection (C)(1)(a)(ii):

- (i) Prevent Solvent vapors from escaping from the Solvent container by using such devices as a cover or a valve when the remote reservoir is not being used, cleaned, or repaired;
- (ii) Direct Solvent flow in a manner that will prevent liquid Solvent from splashing outside of the Remote Reservoir Cleaner;
- (iii) Do not clean porous or absorbent materials, such as cloth, leather, wood, or rope; and
- (iv) Use only Solvent containers free of all Liquid Leaks. Auxiliary equipment, such as pumps, pipelines, or flanges, shall not have any Liquid Leaks, visible tears, or cracks. Any Liquid Leak, visible tear, or crack detected shall be repaired within one (1) calendar day, or the leaking section of the remote reservoir cold cleaner shall be drained of all Solvent and shut down until it is replaced or repaired.

(4) Storage and Disposal

- (a) All VOC containing Solvents, used in Solvent Cleaning operations, or a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in Non-Absorbent, Non-Leaking Containers which shall be kept closed at all times except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the facility.

(5) Control Equipment

- (a) In lieu of complying with the requirements in subsection (C)(1)(a) or (C)(2), a Person may comply by using a VOC emission collection and control system in association with the Solvent Cleaning operation provided:
 - (i) The emission control system shall collect at least 90 percent, by weight, of the emissions generated by the Solvent Cleaning operation; and
 1. have a destruction efficiency of at least 95 percent, by weight, or
 2. have an output of less than 50 parts per million (PPM) calculated as carbon with no dilution; or
 - (ii) The emission control system meets the requirements of the applicable source specific rule of the District's Regulation XI. The collection system for cleaning in Screen Printing and cleaning of Application Equipment used for Screen Printing materials shall collect at least 70 percent, by weight, of the emissions generated. This control system shall reduce emissions from the emission collection system by at least 95 percent.

(D) Recordkeeping Requirements

- (1) Records shall be maintained pursuant to Rule 109 for all applications subject to this rule, including those exempted under section (F), except the following:
 - (a) Facilities required to keep records of VOC used pursuant to any other Regulation XI rules.
- (2) Records shall be maintained to record the amount and type of each solvent used at each process on a daily basis. The following information should be included:
 - (a) The name of the solvent;
 - (b) The name of the solvent manufacturer;
 - (c) The VOC content of the solvent expressed in grams/liter or lb/gallon;
 - (d) Solvent usage; and

- (e) The mix ratio for the cleaning solvent as applied.
- (3) If compliance with this rule is achieved through the use of an Emission Control System, in addition to the provisions of subsection (D)(2), records shall also include:
 - (a) Daily records of temperatures, pressures, flowrates, and hours of operation of the control device to verify compliance of the capture and control device; and
 - (b) Records of maintenance work which interferes with the operation of the control device.
- (4) All records shall be maintained and on site for a period of five (5) years and made available to the APCO or District staff upon request.

(E) Test Methods

- (1) For the purpose of this rule, the following test methods shall be used. Other test methods determined to be equivalent after review by District staff, the Air Resources Board, and the USEPA, and approved in writing by the APCO and the USEPA, may also be used.
 - (a) The VOC content of materials subject to the provisions of this rule shall be determined by the following methods:
 - (i) USEPA Reference Method 24 (Code of Federal Regulations, Title 40, Part 60, Appendix A) and subsection (B)(12) of this rule.
 - (b) Exempt Perfluorocarbon Compounds
 - (i) The following classes of compounds will be analyzed as Exempt Compounds for compliance with Section (C), only when manufacturers specify which individual compounds are used in the Solvent formulation and identify the USEPA, California Air Resources Board, and other USEPA-approved test methods used to quantify the amount of each exempt compound:
 1. cyclic, branched, or linear, completely fluorinated alkanes;
 2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 4. sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

- (c) Determination of VOC Composite Partial Pressure
 - (i) The identity and quantity of components in Solvents shall be determined by ASTM Method D323-94. The VOC Composite Partial Pressure is calculated using the equation in subsection (B)(35) of this rule.
- (d) Determination of Presence of VOC in Cleaning Materials
 - (i) The presence of VOC in liquid cleaning materials shall be determined by SCAQMD Method 308 (Quantitation of Compounds by Gas Chromatography) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.
- (e) Determination of Efficiency of Emission Control System
 - (i) The efficiency of the collection device of the emission control system as specified in subsection (C)(5)(a)(i) shall be determined by the USEPA method cited in USEPA's publication entitled "Guidelines for Determining Capture Efficiency", January 9, 1995, in conjunction with USEPA Method 204, 204A, 204B, 204C, 204D, 204E or 204F, as appropriate, or any other alternative method approved by USEPA, the California Air Resources Board, and the District.
 - (ii) The efficiency of the control device of the emission control system as specified in subsection (C)(5)(a)(i) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Method 25 or 25A, as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of Exempt Compounds.
- (f) Multiple Test Methods
 - (i) When more than one test method or set of test methods is specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.
- (g) Unless otherwise specified, all test methods referenced in this section shall be the version most recently approved by USEPA.

(F) Exemptions

- (1) The provisions of this Rule shall not apply to:
 - (a) Any source operation that is subject to or specifically exempted by any of the following:
 - (i) Rule 1102 - *Petroleum Solvent Dry Cleaners*
 - (ii) Rule 1113 - *Architectural Coatings*
 - (iii) Rule 1122 - *Solvent Degreasers*

- (iv) Rule 1124 - *Aerospace Assembly and Component Manufacturing Operations*, except coating Application Equipment cleaning, and storage and disposal of VOC-containing materials used in Solvent Cleaning operations.
 - (v) Rule 1141.1 – *Coatings and Ink Manufacturing*
 - (vi) Rule 1151 – *Motor Vehicle and Mobile Equipment Coating Operations*
 - (vii) Rule 1151.1 – *Motor Vehicle Assembly Coating Operations*
 - (viii) Rule 1164 - *Semiconductor Manufacturing*.
 - (b) Janitorial Cleaning, including graffiti removal.
 - (c) Stripping of Cured Coatings, Cured Adhesives, and Cured Inks.
 - (d) Cleaning operations using Solvents with a water content of 98% or more, by weight.
- (2) The provisions of subsection (C)(1)(a) shall not apply when carried out for any of the following applications:
- (a) Cleaning of solar cells, laser hardware, Scientific Instruments, and High Precision Optics.
 - (b) Cleaning for: conducting performance laboratory tests on coatings, adhesives, or inks; research and development programs; and laboratory tests in quality assurance laboratories.
 - (c) Cleaning of polycarbonate plastics.
 - (d) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics.
- (3) Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in subsection (C)(2)(a)(ii), are not subject to the provisions of subsection (D)(1).
- (4) Cleaning with Aerosol Products shall not be subject to the provisions of subsections (C)(1)(a) and (D)(1) if 160 fluid ounces or less of Aerosol Product are used per day, per Facility.
- (5) Medical Device and pharmaceutical facilities may use up to 1.5 gallons per day of Solvents that are not in compliance with subsection (C)(1)(a).
- (6) The provisions of subsection (C)(1)(a)(iii) shall not apply to cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery product using less than 3 gallons per day of ethyl acetate averaged over a 30 calendar day period.
- (7) The provisions of subsection (C)(1)(a)(iv) shall not apply to Persons or Facilities using less than 1.5 gallons per day of solvents to clean Sterilization Indicating Ink Application Equipment.

(G) Rule 442 Applicability

Any Solvent, Solvent Cleaning activity, Solvent Cleaning unit operation, or Person, which is exempt from all or a portion of this rule except section (D), shall be subject to the applicable requirements of the applicable Regulation XI source specific rule or Rule 442 - *Usage of Solvent*.

See SIP Table at www.avaqmd.ca.gov

Antelope Valley
Air Quality Management District



Final
Staff Report
Amendments to
Rule 1171 – *Solvent Cleaning Operations*

Adopted on
August 21, 2018

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STAFF REPORT
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STAFF REPORT

Rule 1171– *Solvent Cleaning Operations*

I. PURPOSE OF STAFF REPORT

A staff report serves several discrete purposes. Its primary purpose is to provide a summary and background material to the members of the Governing Board. This allows the members of the Governing Board to be fully informed before making any required decision. It also provides the documentation necessary for the Governing Board to make any findings, which are required by law to be made prior to the approval or adoption of a document. In addition, a staff report ensures that the correct procedures and proper documentation for approval or adoption of a document have been performed. Finally, the staff report provides evidence for defense against legal challenges regarding the propriety of the approval or adoption of the document.

II. EXECUTIVE SUMMARY

The Antelope Valley Air Pollution Control District (AVAPCD) was created by statute on July 1, 1997, with a jurisdiction of the Los Angeles County portion of the South Coast Air Quality Management District (SCAQMD) that was not within the South Coast Air Basin. SCAQMD rules in effect in the AVAPCD remained in effect until the AVAPCD Governing Board superseded or amended them. On January 1, 2002 the AVAQMD was formed pursuant to statute (Health & Safety Code §§41300 et seq.) to replace the AVAPCD. The rules of the AVAPCD also remain in effect until the AVAQMD Governing Board supersedes or amends them.

The Federal Clean Air Act (FCAA) requires areas designated non-attainment and classified moderate and above to implement Reasonably Available Control Technology (RACT) for sources subject to CTG documents issued by United States Environmental Protection Agency (USEPA) and for “major sources” of Volatile Organic Compounds (VOCs) and Oxides of Nitrogen (NO_x) which are ozone precursors. The District adopted the *8-Hour Reasonably Available Control Technology – State Implementation Plan Analysis (RACT SIP Analysis)* in July, 2015 for the 2008 75 ppb ozone National Ambient Air Quality Standards (NAAQS). This document committed to amending Rule 1171 to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure. This rule is subject to the CTG titled *Control Techniques Guidelines: Industrial Cleaning Solvents, (EPA-453/R-06-001), September 2006*. The AVAQMD is now proposing to amend Rule 1171 – *Solvent Cleaning Operations* to reflect current federal RACT.

Rule 1171 was originally adopted on 08/02/91 by the SCAQMD and subsequently amended on 05/12/95, 09/13/96, and 06/13/97. The version of Rule 1171, as amended by SCAQMD on 06/13/97, was the initial rule of the AVAPCD. On 11/17/98 the AVAPCD amended Rule 1171. The 11/17/98 version is the current version in the AVAQMD rule book.

AVAQMD submitted the 11/17/98 version of Rule 1171 for inclusion to the SIP. USEPA finalized approval of the 11/17/98 version of Rule 1171 on 05/24/01 (66 FR 28666).

The proposed amendment of Rule 1171 – *Solvent Cleaning Operations* addresses the 2015 *RACT SIP Analysis* commitment. The proposed amendments are based on the Control Technique Guidelines: Industrial Cleaning Solvents, South Coast Air Quality Management District Rule 1171 - *Solvent Cleaning Operations*, amended 02/01/08, Yolo-Solano AQMD Rule 2.31 – *Solvent Cleaning and Degreasing*, amended 04/12/17, and San Joaquin Valley Air Pollution Control District Rule 4663 - *Organic Solvent Cleaning Storage and Disposal*, amended 09/20/07 and Rule 4605 - *Aerospace Assembly and Component Manufacturing Operations*, amended 06/16/11.

This item was noticed for the July 17, 2018 Governing Board meeting. The item was continued to the August 21, 2018 meeting to address substantive comments from USEPA.

III. STAFF RECOMMENDATION

Staff recommends that the Governing Board of the Antelope Valley Air Quality Management District (AVAQMD or District) amend proposed Rule 1171 – *Solvent Cleaning Operations* and approve the appropriate California Environmental Quality Act (CEQA) documentation. This action is necessary satisfy 42 U.S.C. §§7511a (FCAA) §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors.

The Governing Board of AVAQMD amended Rule 1171 – *Solvent Cleaning Operations* on August 21, 2018.

IV. LEGAL REQUIREMENTS CHECKLIST

The findings and analysis as indicated below are required for the procedurally correct amendments to Rule 1171 – *Solvent Cleaning Operations*. Each item is discussed, if applicable, in Section V. Copies of related documents are included in the appropriate appendices.

FINDINGS REQUIRED FOR RULES & REGULATIONS:

- X Necessity
- X Authority
- X Clarity
- X Consistency
- X Nonduplication
- X Reference
- X Public Notice & Comment
- X Public Hearing

REQUIREMENTS FOR STATE IMPLEMENTATION PLAN SUBMISSION (SIP):

- X Public Notice & Comment
- X Availability of Document
- X Notice to Specified Entities (State, Air Districts, USEPA, Other States)
- X Public Hearing
- X Legal Authority to adopt and implement the document.
- X Applicable State laws and regulations were followed.

ELEMENTS OF A FEDERAL SUBMISSION:

- X Elements as set forth in applicable Federal law or regulations.

CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS (CEQA):

- N/A Ministerial Action
- N/A Exemption
- X Negative Declaration
- N/A Environmental Impact Report
- X Appropriate findings, if necessary.
- X Public Notice & Comment

SUPPLEMENTAL ENVIRONMENTAL ANALYSIS (RULES & REGULATIONS ONLY):

- X Environmental impacts of compliance.
- N/A Mitigation of impacts.
- N/A Alternative methods of compliance.

OTHER:

- X Written analysis of existing air pollution control requirements
- X Economic Analysis
- X Public Review

V. DISCUSSION OF LEGAL REQUIREMENTS

A. REQUIRED ELEMENTS/FINDINGS

This section discusses the State of California statutory requirements that apply to the proposed amendments to Rule 1171. These are actions that need to be performed and/or information that must be provided in order to amend the rule in a procedurally correct manner.

1. State Findings Required for Adoption of Rules & Regulations:

Before adopting, amending, or repealing a rule or regulation, the District Governing Board is required to make findings of necessity, authority, clarity, consistency, non-duplication, and reference based upon relevant information presented at the hearing. The information below is provided to assist the Board in making these findings.

a. Necessity:

The amendments to Rule 1171 are necessary to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

b. Authority:

The District has the authority pursuant to California Health and Safety Code (H & S Code) §40702 to adopt, amend or repeal rules and regulations.

c. Clarity:

The amendments to Rule 1171 are clear in that they are written so that the persons subject to the rule can easily understand the meaning.

d. Consistency:

The amendments to Rule 1171 are in harmony with, and not in conflict with or contradictory to any state law or regulation, federal law or regulation, or court decisions. The proposed rule is consistent with the CTG provisions and other District rules deemed to meet RACT.

e. Nonduplication:

The amendments to Rule 1171 do not impose the same requirements as any existing state or federal law or regulation, or

court decision. CTGs are primarily guidance documents and not enforceable in and of themselves. A rule is necessary to implement the applicable provisions of these documents.

f. Reference:

The District has the authority pursuant to H & S Code §40702 to adopt, amend or repeal rules and regulations.

g. Public Notice & Comment, Public Hearing:

Notice for the public hearing for the amendments to Rule 1171 was published on June 15, 2018. This item was noticed for the July 17, 2018 Governing Board meeting. The item was continued to the August 21, 2018 meeting to address substantive comments from USEPA. See Appendix “B” for a copy of the public notice. See Appendix “C” for copies of comments, if any, and District responses.

2. Federal Elements (SIP Submittals, Other Federal Submittals).

Submittals to USEPA are required to include various elements depending upon the type of document submitted and the underlying Federal law that requires the submittal. The information below indicates which elements are required for the proposed amendments to Rule 1171 and how they were satisfied.

a. Satisfaction of Underlying Federal Requirements:

The FCAA requires areas designated non-attainment and classified moderate and above to implement RACT for sources subject to CTG documents issued by USEPA and for “major sources” of VOCs and NO_x that are ozone precursors. Because the District has an existing SIP rule for this CTG category, the District committed to adopting an updated RACT rule for solvent cleaning operations as part of the *RACT SIP Analysis*. The AVAQMD is proposing to update Rule 1171 – *Solvent Cleaning Operations* to reflect current federal RACT as determined by comments from USEPA, CTG requirements, other related national rules and guidance, and the rules of other California air districts with nonattainment designations. USEPA approved AVAQMD Rule 1171 – *Solvent Cleaning Operations* amended 11/17/98 as a RACT rule on 05/24/01 (66 FR 28666) and this rule was used as a basis for amendment

b. Public Notice and Comment:

Notice for the public hearing for the proposed amendments to Rule 1171 was published on June 15, 2018. This item was noticed for the July 17, 2018 Governing Board meeting. The item was

continued to the August 21, 2018 meeting to address substantive comments from USEPA. See Appendix “B” for a copy of the public notice. See Appendix “C” for copies of comments, if any, and District responses.

c. Availability of Document:

Copies of the proposed amendments to Rule 1171 and the accompanying draft staff report were made available to the public on June 15, 2018.

d. Notice to Specified Entities:

Copies of the proposed amendments to Rule 1171 and the accompanying draft staff report were sent to all affected agencies. The proposed amendments were sent to the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (USEPA) on June 15, 2018.

e. Public Hearing:

A public hearing to consider the proposed amendments to Rule 1171 was set for July 17, 2018. The item was continued to the August 21, 2018 meeting to address substantive comments from USEPA.

f. Legal Authority to Adopt and Implement:

The District has the authority pursuant to H&S Code §40702 to adopt, amend, or repeal rules and regulations and to do such acts as may be necessary or proper to execute the duties imposed upon the District.

g. Applicable State Laws and Regulations Were Followed:

Public notice and hearing procedures pursuant to H&S Code §§40725-40728 have been followed. See Section (V)(A)(1) above for compliance with state findings required pursuant to H&S Code §40727. See Section (V)(B) below for compliance with the required analysis of existing requirements pursuant to H&S Code §40727.2. See Section (V)(C) for compliance with economic analysis requirements pursuant to H&S Code §40920.6. See Section (V)(D) below for compliance with provisions of the CEQA.

B. WRITTEN ANALYSIS OF EXISTING REQUIREMENTS

H & S Code §40727.2 requires air districts to prepare a written analysis of all existing federal air pollution control requirements that apply to the same equipment or source type as the rule proposed for modification by the district.

The FCAA requires areas designated non-attainment for ozone and classified moderate and above to adopt and maintain RACT rules to control the emissions of VOCs and NO_x for categories which the USEPA has adopted a CTG and for all categories where there are major stationary sources of air pollution (42 U.S.C. §7511a(b)(2), FCAA 182(b)(2)). For purposes of the FCAA, the District has been designated non-attainment for ozone and classified Severe-17.

The AVAQMD committed to amending Rule 1171 – *Solvent Cleaning Operations* as part of the recently adopted *RACT SIP Analysis*.

The AVAQMD has a solvent cleaning operations rule which was amended November 17, 1998 and approved as RACT into the SIP on May 24, 2001 (66 FR 28666). This rule is subject to the CTG titled Industrial Cleaning Solvents.

The proposed amendments are based on the CTG: *Industrial Cleaning Solvents*, and various district rules deemed as fulfilling RACT requirements, including but not limited to: South Coast Air Quality Management District Rule 1171 - *Solvent Cleaning Operations*, amended 02/01/08 (76 FR 60376), Yolo-Solano AQMD Rule 2.31 – *Solvent Cleaning and Degreasing*, amended 04/12/17, and San Joaquin Valley Air Pollution Control District Rule 4663 - *Organic Solvent Cleaning Storage and Disposal*, amended 09/20/07 (74 FR 37948) and Rule 4605 - *Aerospace Assembly and Component Manufacturing Operations*, amended 06/16/11 (76 FR 70886).

C. ECONOMIC ANALYSIS

1. General

RACT is defined as the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53762, September 17, 1979). Rule 1171 is equivalent to rules that were determined by USEPA to be RACT¹. This determination by USEPA means that the provisions of Rule 1171 are, by definition, cost effective. In addition, all sources are currently in compliance with this RACT limit without additional control equipment or cost. As a result, no cost impacts are expected from the proposed amendments.

¹ Yolo-Solano AQMD Rule 2.31 – Solvent Cleaning and Degreasing, (Amended 05/08/13, 80 FR 23449)

2. Incremental Cost Effectiveness

Pursuant to H&S Code §40920.6, incremental cost effectiveness calculations are required for rules and regulations which are adopted or amended to meet the California Clean Air Act (CCAA) requirements for Best Available Retrofit Control Technology (BARCT) or “all feasible measures” to control volatile compounds (VOCs), oxides of nitrogen (NO_x) or oxides of sulfur (SO_x). This requirement does not apply to the proposed amendments to Rule 1171 since it does not require BARCT or “all feasible measures.”

D. ENVIRONMENTAL ANALYSIS (CEQA)

Through the process described below the appropriate CEQA process for the proposed amendments to Rule 1171 was determined.

1. The proposed amendments to Rule 1171 meet the CEQA definition of “project”. They are not “ministerial” actions.
2. The proposed amendments to Rule 1171 are exempt from CEQA review because they will not create any adverse impacts on the environment. The proposed rule amendments are more stringent than the previous rule version. This rule has been strengthened by reducing VOC limits, establishing work practices and addressing the alternative composite vapor pressure limit. Because there is no potential that the amendment might cause the release of additional air contaminants or create any adverse environmental impacts, a Class 8 categorical exemption (14 Cal. Code Reg. §15308) applies. Copies of the documents relating to CEQA can be found in Appendix “D”.

E. SUPPLEMENTAL ENVIRONMENTAL ANALYSIS

1. Potential Environmental Impacts

The District does not anticipate any potential environmental impacts of compliance with the proposed amendments to Rule 1171, as the amendments will enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

2. Mitigation of Impacts

N/A

3. Alternative Methods of Compliance

N/A

F. PUBLIC REVIEW

See Staff Report Section (V)(A)(1)(g) and (2)(b), as well as Appendix “B”

VI. TECHNICAL DISCUSSION

A. SOURCE DESCRIPTION

This rule applies to all Persons who use VOC-containing materials in Solvent Cleaning operations during the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas and all persons who store and dispose of VOC-containing materials used in Solvent Cleaning Operations. This rule also exempts source operations subject to or specifically exempted by existing source specific District rules.

B. EMISSIONS

As an administrative action, this rule amendment would not have any direct impact on the issuance of air contaminants. This rule has been strengthened by enhancing work practices, adjusting categories for consistency with source specific rules, reducing VOC limits and addressing the alternative composite vapor pressure.

C. CONTROL REQUIREMENTS

Please see section (C) of the rule for control requirements. Control requirements consist of loading requirements for Class “A”, “B” and “C” facilities, transport vessels, switch loading, and leak inspection.

D. PROPOSED RULE SUMMARY

This section gives a brief overview of the proposed amendments to Rule 1171.

The rule formatting has been updated for consistency with other District rules.

Section (B) The following definitions have been added or updated:

- Aerospace Component
- Aerospace Vehicle or Components
- Aircraft
- District
- Pharmaceutical Facility
- Radiation Effect Coating
- Space Vehicle

Section (C) has been amended as follows:

- The table in (C)(1)(a) has been revised to reflect lower VOC limits.
- (C)(1)(b) now contains the Composite Partial Pressure limit, as that limit was removed from the table in (C)(1)(a).
- Subsection (C)(2)(b thru d) was moved from previous section (D).

- Subsection (C)(4)(a) has clarification on waste or used product and disposal.
- Subsection (C)(5)(a)(ii) removed Graphic Arts as it is covered by a source specific rule 1130.

Section (D) has been moved to (C)(2)(d) and new Section (D), previously (6) has been amended to require more comprehensive record keeping.

Section (F) Rule 442 Applicability is now Section (G).

Section (F) Exemptions

- Source specific Rules have been added, removed or renumbered for ascending order.
- (F)(1)(i) removed “Institutional cleaning” as per USEPA suggestion that it may provide a broader exemption than intended.

Work practices are currently in place within the existing document, but not specifically identified. The following subsections address each of the four recommended work practices:

- Cover open containers and used applicators is addressed in (C)(2)(a)(iii) and (C)(4)(a).
- Minimize air circulation around cleaning operations is addressed in (C)(2)(a)(ii).
- Properly dispose of used solvent and shop towels is addressed in (C)(4)(a).
- Implement equipment practices that minimize emissions is addressed in (C)(2).

E. SIP HISTORY

1. SIP History.

Prior to 1975 the original air district for the Antelope Valley region was the Los Angeles County Air Pollution Control District that had a jurisdiction covering the entire county of Los Angeles. In 1975, the Southern California APCD was created. It was a joint powers authority that had a jurisdiction covering all of the counties of Los Angeles, Orange, Riverside and San Bernardino. The SCAQMD came into existence pursuant to statute on February 1, 1976 and originally covered only the areas within the South Coast Air Basin (SCAB). The legislation was thereafter amended to allow non-SCAB areas to “opt in.” Los Angeles County exercised this option and thus the Antelope Valley became a part of SCAQMD. On July 1, 1997 the AVAPCD replaced the SCAQMD as the agency with jurisdiction over the Los Angeles County portion of the Mojave Desert Air Basin (MDAB). On January 1, 2002 the AVAPCD was replaced by the AVAQMD. Pursuant to both statutory changes, the rule and regulations of the predecessor district were retained until the Governing Board adopted, amended or rescinded them. At the first meeting of both the AVAPCD and the AVAQMD, the respective Governing Boards reaffirmed all the rules and regulations in effect at the time the agency changed.

The jurisdiction of the AVAPCD and the AVAQMD were specified in the statutes as the portion of the Los Angeles County contained within the MDAB. The MDAB was formerly known as the Southeast Desert Air Basin (SEDAB). In 1997 the SEDAB was split into the MDAB and the Salton Sea Air Basin. Descriptions of these air basins can be found in 17 Cal. Code Regs. §§60109 and 60144. Since USEPA adopts SIP revisions in California as effective within jurisdictional boundaries of local air districts, when the local air district boundaries change the SIP as approved by USEPA for that area up to the date of the change remains as the SIP in that particular area. Thus, upon creation of the AVAPCD on July 1, 1997 the AVAPCD acquired the SIP applicable to the Antelope Valley portion of the SCAQMD that was effective as of June 30, 1997. Likewise the AVAQMD acquired the SIP that was effective in the jurisdiction of the AVAPCD as of December 31, 2000. Therefore, the SIP history for this region is based upon the rules adopted, effective, and approved for the Antelope Valley by SCAQMD.

Rule 1171 was originally adopted on 08/02/91 by the SCAQMD and subsequently amended on 05/12/95, 09/13/96, and 06/13/97. The version of Rule 1171, as amended by SCAQMD on 06/13/97, was the initial rule of the AVAPCD. On 11/17/98 the AVAPCD amended Rule 1171.

The 11/17/98 version is the current version in the AVAQMD rule book.

SCAQMD submitted the 05/12/95 version of Rule 1171 to USEPA for inclusion in the SIP on 06/16/1995 and received final approval on 07/14/95 (60 FR 36230).

AVAQMD submitted the 11/17/98 version of Rule 1171 to USEPA for inclusion in the SIP on 12/10/98 and received final approval on 05/24/01 (66 FR 28666). Therefore the 11/17/98 version of Rule 1171 is the current version in the AVAQMD SIP

2. SIP Analysis.

The District will request CARB to submit the proposed amendments to Rule 1171 – *Solvent Cleaning Operations* to USEPA for inclusion into the State Implementation Plan. This submission is necessary to satisfy 42 U.S.C. §§7511a (FCAA §182) which requires that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors. The District will request that this version, upon approval, supersede the current SIP version as well as any potential outstanding SIP submissions made prior to the adoption date.

The proposed amendments to Rule 1171 – *Solvent Cleaning Operations* are more stringent in that the rule has been strengthened by enhancing work practices, adjusting categories for consistency with source specific rules, reducing VOC limits and addressing the alternative composite vapor pressure.

Appendix “A”

Rule 1171 – *Solvent Cleaning Operations* Iterated Version

The iterated version is provided so that the changes to an existing rule may be easily found. The manner of differentiating text is as follows:

1. Underlined text identifies new or revised language.
2. ~~Lined out text~~ identifies language which is being deleted.
3. Normal text identifies the current language of the rule which will remain unchanged by the adoption of the proposed amendments.
4. *[Bracketed italicized text]* is explanatory material that is not part of the proposed language. It is removed once the proposed amendments are adopted.

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RULE 1171

Solvent Cleaning Operations

(A) General

(1) Purpose

- (a) The purpose of this rule is to ~~limit~~~~reduce~~ emissions of ~~v~~Volatile ~~e~~Organic ~~c~~ompounds (VOCs) ~~and stratospheric ozone depleting or global-warming compounds~~ from Solvent Cleaning operations and activities, and from the storage and disposal of these materials used ~~in Solvent Cleaning~~for such operations. *[Derived from Yolo Solano AQMD Rule 2.31]*

(2) Applicability

- (a) This rule applies to all Persons who use VOC-containing materials in Solvent Cleaning operations during the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas, and to all Persons who store and dispose of VOC-containing materials used in Solvent Cleaning.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) “Aerosol Product”: - ~~a~~A hand-held, non-refillable container which expels pressurized product by means of a propellant-induced force.
- (2) “Aerospace Vehicle or Components”: - Any fabricated part, processed part, assembly of parts or completed unit, with the exception of electronic components, of any Aircraft, including but not limited to airplanes, helicopters, missiles, rockets, or Space Vehicle, including, but not limited to, integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. [Derived from Yolo Solano Rule 2.31 and AVAQMD Rule 1124, (B)(6). Added to define sub-category added to (C)(1)(a)(iii). Definition has been modified per Nicole Law, USEPA Region 9, email dated 07/16/2018.]
- (3) “Aircraft” - Any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles. [Derived from AVAQMD Rule 1124, (B)(9). Added to define verbiage in (B)(2).]

- (24) “Air Pollution Control Officer (APCO)” - ~~the~~ Person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of the California Health & Safety Code §40750, and his or her designee.
- (35) “Application Equipment” - ~~a~~ A device used to apply adhesive, coating, ink, or polyester resin materials.
- (46) “Cured Coatings, Cured Inks, and Cured Adhesives” - ~~e~~ Coatings, inks, and adhesives which are dry to the touch.
- (7) “District” - The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103. *[Derived from AVAQMD Rule 102 (M).]*
- (58) “Electrical Apparatus Components” - ~~a~~ All internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in apparatus that generates or transmits electrical energy including, but not limited to generators, transformers, and electric motors.
- (69) “Electronic Components” - ~~a~~ All portions of an assembly, including circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the actual cabinet in which the components are housed.
- (710) “Exempt Compounds” - ~~Those~~ Those compounds listed as excluded from the definition of Volatile Organic Compounds in 40 CFR 51.100(~~Ss~~)(4). *[Verbiage changed per USEPA Attorney Adviser, Douglas Bushey in email dated 07/17/2016. Strikethrough of uppercase letters in Volatile Organic Compound contained in this definition have been modified to lowercase letters and the term has been made plural per Douglas Bushey, USEPA Attorney Advisor, in email dated 08/08/2018.]*
- (811) “Facility” - ~~a~~ A business or businesses engaged in ~~s~~ Solvent ~~e~~ Cleaning ~~o~~ Operations which are owned or operated by the same Person or Persons and are located on the same or contiguous parcels.
- ~~(9) Flexographic Printing: the method in which the image area is raised relative to the nonimage area and utilizes flexible rubber or other elastomeric plate and rapid drying liquid inks. [Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer necessary in Rule 1171]~~
- (1012) “Grams Of VOC Per Liter Of Material” - ~~the~~ The weight of VOC per volume of material, ~~and can be~~ calculated by the following equation:

$$\text{Grams of VOC per liter of material} = \frac{W_s - W_w - W_{ec}}{Vm}$$

Where:	Ws	=	Weight of volatile compounds in grams
	Ww	=	Weight of water in grams
	Wesc	=	Weight of Exempt Compounds in grams
	Vm	=	Volume of material in liters

- ~~(11) **Graphic Arts:** all Gravure, Letterpress, Flexographic, and Lithographic Printing processes. *[Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer necessary in Rule 1171.]*~~
- ~~(12) **Gravure Printing:** an intaglio process in which the ink is carried in minute etched or engraved wells on a roll or cylinder. The excess ink is removed from the surface by a doctor blade. *[Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer necessary in Rule 1171]*~~
- (13) **“High Precision Optics”**: - eOptical elements used in electro-optical devices which are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.
- ~~(14) **Institutional Cleaning:** cleaning activities conducted at organizations, societies, or corporations including, but not limited to schools, hospitals, sanitariums, and prisons. *[Definition deleted per USEPA suggestion via email on 11/28/17, #1, as it includes “cleaning activities conducted at organizations, societies, or corporations...” which may provide a broader exemption than intended. All reference to Institutional Cleaning will be removed.]*~~
- ~~(15)~~ **“Janitorial Cleaning”**: - tThe cleaning of building or Facility components, such as the floors, ceilings, walls, windows, doors, stairs, bathrooms, etc.
- ~~(16) **Letterpress Printing** the method in which the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image surface. *[Term was included in amendment of Rule 1130 on 11/19/13, no longer necessary in Rule 1171]*~~
- ~~(17)~~ **“Liquid Leak”**: - tThe visible liquid solvent leak from the container at a rate of more than three (3) drops per minute, or a visible liquid mist.
- ~~(18) **Liquid Tight Food Container:** a paperboard container that can hold liquid food and food products without leaking even when it is held upside down. *[Definition is only here and in red-lined definition #36-Specialty Flexographic Printing- definition #36 is being deleted]*~~
- ~~(19) **Lithographic Printing:** a plane o graphic method in which the image and nonimage areas are on the same plane. *[Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer necessary in Rule 1171.]*~~

- ~~(20) — Maintenance Cleaning: — a Solvent Cleaning operation or activity carried out to keep tools, machinery, equipment excluding Application Equipment, or general work areas in clean and good operational condition. [Moved to definition for “Repair and Maintenance Cleaning” definition #26 for clarity.]~~
- (216) “Manufacturing Process”: - ~~¶~~The process of making goods or articles by hand or by machinery.
- (2217) “Medical Device”: - ~~a~~An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory, that meets one of the following conditions:
- (a) ~~it is~~ intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease; or
 - (b) ~~it is~~ intended to affect the structure or any function of the body; or
 - (c) ~~it is~~ defined in the National Formulary or the United States Pharmacopeia, or any supplement to them.
- (2318) “Non-Absorbent Containers”: - ~~e~~Containers made of nonporous material which ~~do~~does not allow the migration of the liquid Solvent through them.
- (2419) “Non-Atomized Solvent Flow”: - ~~¶~~The use of a solvent in the form of a liquid stream without atomization to remove uncured adhesives, uncured inks, uncured coatings, and contaminants from an article.
- (2520) “Non-Leaking Containers”: - ~~e~~Containers without Liquid Leaks.
- (2621) “Person”: - ~~a~~Any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or other capacity including any governmental entity or charitable organization.
- (22) “Pharmaceutical Facility”: - Any facility producing or blending chemicals for use in pharmaceutical products and/or employing chemical processes in the manufacture of pharmaceutical products or medical devices. Pharmaceutical facilities may include, but are not limited to, establishments primarily engaged in manufacturing, fabricating, or processing medicinal chemicals and pharmaceutical products for human or veterinary use. *[Derived from Yolo Solano Rule 2.31, 240]*
- ~~(27) — Printing: — in the Graphic Arts is any operation that imparts color, design, alphabet, or numerals on a substrate. *[Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer necessary in Rule 1171.]*~~
- (23) “Radiation Effect Coating”: - ~~A material that prevents radar detection. *[Derived from SCAQMD Rule 1171, (b)(42). Definition is no longer needed as it will not be used in this rule.]*~~

- (2823) “Remote Reservoir Cleaner”: - ~~a~~A cleaning device in which liquid solvent is pumped from a solvent container to a sink-like work area and the solvent from the sink-like area drains into an enclosed solvent container while parts are being cleaned.
- (2924) “Repair and Maintenance Cleaning”: - ~~a~~A Solvent Cleaning ~~o~~Operation or activity carried out during:
- (a) Return a damaged object or an object not operating properly to good condition; or
 - (b) Maintain tools, machinery equipment (excluding Application Equipment) or general work areas, in clean and good operational condition.~~a Repair Process. [Throughout the rule Repair Cleaning it is referred to as Repair and Maintenance Cleaning. This definition combines #20 “Maintenance Cleaning” and #29 “Repair Cleaning” for clarification. “Repair Process” definition #30 is only used in the rule in the definition of Repair Cleaning. “Repair Cleaning” language has now been included in “Repair and Maintenance Cleaning” definition.]~~
- ~~(30) Repair Process: the process of returning a damaged object or an object not operating properly to good condition. [Only used to define #29 above. Combined definitions #29 & #30 for clarification.]~~
- (3125) “Scientific Instruments”: - ~~i~~Instruments (including the components, assemblies, and subassemblies used in their manufacture) and associated accessories and reagents which are used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.
- (3226) “Screen Printing”: - ~~a~~A process in which ~~the Printing~~ ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.
- (3327) “Solvent”: - ~~a~~A VOC-containing liquid used to perform Solvent Cleaning.
- (3428) “Solvent Cleaning”: - ~~t~~The removal of ~~loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process,~~ which consists of a series of cleaning ~~methods, methods,~~ shall constitute a separate Solvent Cleaning operation.
- (3529) “Solvent Flushing”: - ~~t~~The use of a Solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of the equipment by flushing Solvent through the equipment.

~~(30) “Space Vehicle” – A vehicle designed to travel beyond earth's atmosphere.
[Derived from AVAQMD Rule 1124, (B)(85), to clarify verbiage in Rule 1171
(B)(2).]~~

~~(36) Specialty Flexographic Printing: Flexographic Printing on polyethylene or
polypropylene food packaging, fertilizer bags, or Liquid-Tight Food
Containers.[Term was included in the amendment of AV Rule 1130 on 11/19/13,
no longer necessary in Rule 1171]~~

~~(3731) “Sterilization Indicating Inks”: - ~~in~~ks that changes color to indicate that
sterilization has occurred. Such inks ~~are~~is used to monitor the sterilization of
medical instruments, autoclave efficiency, and the thermal processing of foods for
prevention of spoilage.~~

~~(3832) “Stripping”: - ~~t~~The removal of Cured Coatings, Cured Inks, and Cured Adhesives.~~

~~(3933) “Surface Preparation”: - ~~t~~The removal of contaminants such as dust, soil, oil,
grease, etc., prior to coating, adhesive, or ink applications.~~

~~(40) Ultraviolet Inks: inks which dry by polymerization reaction induced by ultraviolet
energy.[Term was included in the amendment of AV Rule 1130 on 11/19/13, no longer
necessary in Rule 1171]~~

~~(4134) “United States Environmental Protection Agency (USEPA)”: - ~~t~~The United States
Environmental Protection Agency, the Administrator of the USEPA and his or her
authorized representative.~~

~~(4235) “VOC Composite Partial Pressure”: - ~~t~~The sum of the partial pressures of the
compounds defined as VOCs. VOC Composite Partial Pressure is calculated as
follows:~~

$$PP_c = \frac{\sum_{i=1} \frac{(W_i)(V_{Pi})}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where: W_i = Weight of the "i"th VOC compound, in grams
 W_w = Weight of water in grams
 W_e = Weight of exempt compound, in grams
 MW_i = Molecular weight of the "i"th VOC compound, in grams per gram-mole
 MW_w = Molecular weight of water, in grams per gram-mole
 MW_e = Molecular weight of exempt compound, in grams per gram-mole
 PP_c = VOC Composite Partial Pressure at 20°C, in mm Hg
 VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm Hg

(4336) "Volatile Organic Compound (VOC)": - ~~a~~Any volatile compound of carbon, excluding ~~methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and~~ Exempt Compounds.
[Definition is being amended to reflect change in definition #10 "Exempt Compounds", at the request of USEPA Attorney Adviser, Douglas Bushey in email dated 07/17/2016.]

(4437) "Wipe Cleaning": - ~~t~~The method of cleaning a surface by physically rubbing it with a material such as a rag, paper, sponge or a cotton swab moistened with a Solvent.

(C) Requirements

(1) Solvent Requirements

- (a) A Person shall not ~~use a Solvent to~~ perform Solvent Cleaning unless the Solvent complies with the applicable requirements set forth below or:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS		Effective 1/1/1997		Effective 1/1/1999	
	VOC g/l (lb/gal)	VOC Composite Partial Pressure mm Hg @ 20°C (68°F)	VOC g/l (lb/gal)	VOC Composite Partial Pressure mm Hg @ 20°C (68°F)	VOC g/l (lb/gal)	VOC Composite Partial Pressure mm Hg @ 20°C (68°F)
(i) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application						
1. General	70 (0.58)					
2. Electronic Components or Medical Devices	900 (7.5)	33				
(ii) Repair and Maintenance Cleaning						
1. General	900 (7.5)	20				
2. Electrical Apparatus Components	900 (7.5)	20				
3. Medical Devices	900 (7.5)	33				
(iii) Cleaning of Coatings, or Adhesives Application Equipment	950 (7.9)	35				
(iv) Cleaning of Ink Application Equipment						
1. General	100 (0.83)	3				
2. Flexographic or Gravure Printing	100 (0.83)	3				
3. Lithographic or Letter Press Printing	900 (7.5)	25				10
4. Screen Printing	1070 (8.9)	5				
5. Ultraviolet Inks (except Screen Printing)	800 (6.7)	33				
6. Specialty Flexographic Printing	810 (6.8)	21				
(v) Cleaning of Polyester Resin Application Equipment	200 (1.7)		50 (0.42)			
or		+				

[Subsection (C)(1)(a)(iv)(1)(2),(3),(5) and (6) have limits stated in AV Rule 1130 – Graphic Arts, subsection (C)(7)(a) Table 5 (D).]

<u>Solvent Cleaning Activity</u>		<u>VOC Content Limit*</u> <u>grams/liter</u> <u>(lb/gal)</u>
		<u>Limit</u>
<u>(i) Product Cleaning During Manufacturing Process or Surface Preparation for Adhesive, Coatings or Ink Application</u>	<u>General</u>	<u>50</u> <u>(0.42)</u>
	<u>Electrical Components and Electronic Apparatus Components</u>	<u>100</u> <u>(0.83)</u>
	<u>Medical Devices & Pharmaceuticals</u>	<u>800</u> <u>(6.7)</u>
<u>(ii) Repair and Maintenance Cleaning</u>	<u>General</u>	<u>50</u> <u>(0.42)</u>
	<u>Electrical Components and Electronic Apparatus Components</u>	<u>100</u> <u>(0.83)</u>
	<u>Medical Devices & Pharmaceuticals</u>	<u>Tools, Equipment & Machinery</u> <u>800</u> <u>(6.7)</u>
		<u>General Work Surface</u> <u>600</u> <u>(5.0)</u>
<u>(iii) Cleaning of Adhesives or Coating Application Equipment</u>	<u>General</u>	<u>50</u> <u>(0.42)</u>
	<u>Aerospace Vehicle or Component</u>	<u>200</u> <u>(1.67)</u> <u>or</u> <u>45</u> <u>mmHg</u>
<u>(iv) Cleaning of Ink Application Equipment</u>	<u>General</u>	<u>50</u> <u>(0.42)</u>
	<u>Screen Printing</u>	<u>100</u> <u>(0.83)</u>
<u>(v) Cleaning of Polyester Resin Application Equipment</u>		<u>50</u> <u>(0.42)</u>

*For Aerospace Vehicle or Components, the solvent must comply with either the VOC Content limit in grams/Liter (g/L) or the VOC Composite Partial Pressure limit in millimeters mercury (mmHg). [New VOC limits Derived from CTG - Industrial Cleaning Solvents, EPA 453/R-06-001, September 2006. Limits in (i), (ii) (iii) and (iv) and Aerospace Vehicle or Component sub-category are derived from Yolo-Solano AQMD Rule 2.31, (C)(1)(a), Revised May 8, 2013 and recorded on 04/28/15, 80 FR 23449. Aerospace sub-category limits derived from the CTG for Aerospace, EPA-453/R-97-004, 1997/12, model rule page B-5, subsection (c)(ii). New limits effective upon amendment. The format of the "Limit" column in (C)(1)(a)(iii), Aerospace Vehicle or Component, has been modified in response to USEPA comment #2 dated 08/02/18]

(b) Has a VOC Composite Partial Pressure of 8 mmHg at 20° C (68° F), calculated using the equation in subsection (B)(36) of this rule:

(i) Except for Cleaning of Ink Application Equipment, Screen Printing, which has a VOC Composite Partial Pressure of 5 mmHg at 20° C (68° F). [Derived from the CTG-Industrial Cleaning Solvents, EPA 453/R-06-001, September 2006]

(2) Cleaning Devices and Methods Requirements

(a) A Person shall not perform Solvent Cleaning unless one of the following cleaning devices or methods is used:

(i) Wipe Cleaning;

(ii) Cleaning within ~~C~~losed containers or by using hand held spray bottles from which Solvents are applied without a propellant-induced force;

(iii) Cleaning equipment which has a Solvent container that ~~can be, and~~ is closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during nonoperation with the exception of maintenance and repair to the cleaning equipment itself;

(iv) Remote Reservoir Cleaner used pursuant to the provisions of subsection (C)(3);

(v) Non-Atomized Solvent Flow method where the cleaning Solvent is collected in a container or a collection system which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or

(vi) Solvent Flushing method where the cleaning Solvent is discharged into a container which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged Solvent from the equipment must be collected into containers without atomizing into the open air. The Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

(b) A Person shall not atomize any Solvent unless it is vented to an air pollution control equipment which meets the requirements of subsection (C)(5). [Moved from (D) General Prohibitions]

(c) A Person shall not specify or require any Person to use Solvent or equipment subject to the provisions of this rule that does not meet the requirements of this rule. [Moved from (D) General Prohibitions]

(d) A Person shall not perform Solvent Cleaning activities or operations subject to the provisions of this rule with any material which contains any of the following compounds:

- 1,1,1-trichloroethane (methyl chloroform);
- trichlorofluoromethane (CFC-11);
- dichlorodifluoromethane (CFC-12);
- 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
- 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
- chloropentafluoroethane (CFC-115);
- ethylfluoride (HFC-161);
- 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
- 1,1,2,2,3-pentafluoropropane (HFC-245ca);
- 1,1,2,3,3-pentafluoropropane (HFC-245ea);
- 1,1,1,2,3-pentafluoropropane (HFC-245eb);
- 1,1,1,3,3-pentafluoropropane (HFC-245fa);
- 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
- 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
- chlorofluoromethane (HCFC-31);
- 1-chloro-1-fluoroethane (HCFC-151a); or
- 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)./moved from (D)
General Prohibitions

(3) Remote Reservoir Cleaners

(a) ~~Regardless of Rule 1122 requirements, a~~Any Person owning or operating a Remote Reservoir Cleaner shall comply with all of the following requirements, in addition to the VOC limits for Repair and Maintenance Cleaning specified in ~~clause subsection~~ (C)(1)(a)(ii):

- (i) Prevent Solvent vapors from escaping from the Solvent container by using such devices as a cover or a valve when the remote reservoir is not being used, cleaned, or repaired;
- (ii) Direct Solvent flow in a manner that will prevent liquid Solvent from splashing outside of the Remote Reservoir Cleaner;
- (iii) Do not clean porous or absorbent materials, such as cloth, leather, wood, or rope; and
- (iv) Use only Solvent containers free of all Liquid Leaks. Auxiliary equipment, such as pumps, pipelines, or flanges, shall not have any Liquid Leaks, visible tears, or cracks. Any Liquid Leak, visible tear, or crack detected shall be repaired within one (1) calendar day, or the leaking section of the remote reservoir cold cleaner

shall be drained of all Solvent and shut down until it is replaced or repaired.

(4) Storage and Disposal

- (a) All VOC-containing Solvents, used in Solvent Cleaning operations, or a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in ~~non-absorbent, Non-Leaking Containers~~ which shall be kept closed at all times except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the facility. ~~It is recommended that cloth and paper moistened with VOC-containing Solvents be stored in closed, non-absorbent, Non-Leaking Containers.~~ [Derived from Yolo-Solano Rule 2.31, 302.1 (f)]

(5) Control Equipment

- (a) In lieu of complying with the requirements in ~~subsection~~ paragraphs (C)(1)(a) or ~~(C)~~(2), a Person may comply by using a VOC emission collection and control system in association with the Solvent Cleaning operation provided:
- (i) ~~The~~ The emission control system shall collect at least ~~ninety percent (90 %) percent,~~ by weight, of the emissions generated by the Solvent Cleaning operation; and
1. have a destruction efficiency of at least 95 percent, by weight, or
 2. have an output of less than 50 parts per million (PPM) calculated as carbon with no dilution; or
- (ii) ~~The~~ The emission control system meets the requirements of the applicable source specific rule of the District's Regulation XI. The collection system for cleaning in ~~Graphic Arts and~~ Screen Printing and cleaning of Application Equipment used for ~~Graphic Arts materials and~~ Screen Printing materials; shall collect at least 70 percent, by weight, of the emissions generated. This control system shall reduce emissions from the emission collection system by at least 95 percent. [Graphic Arts collection system requirements and cleaning of Application Equipment for Graphic Arts have been included in amended Rule 1130, subsection (C)(4) and (C)(7)]

~~(6D)~~ Recordkeeping Requirements

- ~~(a1)~~ Records shall be maintained pursuant to Rule 109 for all applications subject to this rule, including those exempted under section ~~(GF)~~, except the following:

- (a) Facilities required to keep records of VOC used pursuant to any other not subject to recordkeeping requirements from any other Regulation XI rules. [Per USEPA suggestion via email, #2, 11/28/17. Derived from SC 1171, 05/01/2009]
- ~~(b) Cleaning performed with a Solvent which has a water content of 98 percent or more, by weight, or a VOC Composite Partial Pressure of 0.1 mm Hg or less at 20°C (68°F), or contains VOC consisting of more than 12 carbon atoms [Removed per USEPA suggestion via email #3, 11/28/17, that the existing verbiage may provide a broader exemption than intended.]~~
- ~~(e2) Records shall be maintained to record the amount and type of each solvent used at each process on a daily basis. The following information should be included:~~
- ~~(ia) The name of the solvent;~~
- ~~(ib) The name of the solvent manufacturer;~~
- ~~(ic) The VOC content of the solvent expressed in grams/liter or lb/gallon;~~
- ~~(d) Solvent usage; and~~
- ~~(e) The mix ratio for the cleaning solvent as applied. [Derived from Yolo Solano Rule 2.31, section 501.2]~~
- ~~(d3) If compliance with this rule is achieved through the use of an Emission Control System, in addition to the provisions of subsection (D)(2), records shall also include:~~
- ~~(a) Daily records of temperatures, pressures, flowrates, and hours of operation of the control device to verify compliance of the capture and control device; and~~
- ~~(b) Records of maintenance work which interferes with the operation of the control device.~~
- ~~(24) All records shall be maintained and on site for a period of five (5) years and made available to the APCO or District staff upon request. [Derived from Yolo Solano Rule 2.31, section 501.2]~~

~~(D) General Prohibitions~~

- ~~(1) A Person shall not atomize any Solvent unless it is vented to air pollution control equipment which meets the requirements of subsection (C)(5). [moved to (C)(2)(b)]~~
- ~~(2) A Person shall not specify or require any Person to use Solvent or equipment subject to the provisions of this rule that does not meet the requirements of this rule.~~

~~(3) — On and after January 1, 1997, a Person shall not perform Solvent Cleaning activities or operations subject to the provisions of this rule with any material which contains any of the following compounds: 1,1,1-trichloroethane (methyl chloroform); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113); 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); ethylfluoride (HFC-161); 1,1,1,3,3,3-hexafluoropropane (HFC-236fa); 1,1,2,2,3-pentafluoropropane (HFC-245ea); 1,1,2,3,3-pentafluoropropane (HFC-245ea); 1,1,1,2,3-pentafluoropropane (HFC-245eb); 1,1,1,3,3-pentafluoropropane (HFC-245fa); 1,1,1,2,3,3-hexafluoropropane (HFC-236ea); 1,1,1,3,3-pentafluorobutane (HFC-365mfe); chlorofluoromethane (HCFC-31); 1-chloro-1-fluoroethane (HCFC-151a); or 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a).~~ [moved to (C)(2)(d)]

(E) Test Methods

(1) For the purpose of this rule, the following test methods shall be used. Other test methods determined to be equivalent after review by ~~the staffs of the~~ District staff, the Air Resources Board, and the USEPA, and approved in writing by the APCO and the USEPA, may also be used. [Vergiage changed per USEPA suggestion via email, #4, 11/28/17.]

(a) The VOC content of materials subject to the provisions of this rule shall be determined by the following methods:

(i) USEPA Reference Method 24 (Code of Federal Regulations, Title 40, Part 60, Appendix A) and subsection (B)(12) of this rule. ~~The Exempt Compounds' content shall be determined by the South Coast Air Quality Management District's (SCAQMD) Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,~~

(b) Exempt Perfluorocarbon Compounds

(i) The following classes of compounds will be analyzed as Exempt Compounds for compliance with Section (C), only when manufacturers specify which individual compounds are used in the Solvent formulation and identify the USEPA, California Air Resources Board, and other USEPA-approved test methods used to quantify the amount of each exempt compound:

1. cyclic, branched, or linear, completely fluorinated alkanes;
2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 4. sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (c) Determination of VOC Composite Partial Pressure
- (i) The identity and quantity of components in Solvents shall be determined by ASTM Method D323-94. The VOC Composite Partial Pressure is calculated using the equation in subsection (B)(~~4235~~) of this rule.
- (d) Determination of Presence of VOC in Cleaning Materials
- (i) The presence of VOC in liquid cleaning materials shall be determined by SCAQMD Method 308 (Quantitation of Compounds by Gas Chromatography) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.
- (e) Determination of Efficiency of Emission Control System
- (i) The efficiency of the collection device of the emission control system as specified in subsection (C)(5)(a)(i) shall be determined by the USEPA method cited in USEPA's publication entitled "Guidelines for Determining Capture Efficiency", January 9, 1995, in conjunction with USEPA Method 204, 204A, 204B, 204C, 204D, 204E or 204F, as appropriate, or any other alternative method approved by USEPA, the California Air Resources Board, and the District.
 - (ii) The efficiency of the control device of the emission control system as specified in subsection (C)(5)(a)(i) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Method 25 or 25A, as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of Exempt Compounds.
- (f) Multiple Test Methods
- (i) When more than one test method or set of test methods is specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.
- (g) Unless otherwise specified, all test methods referenced in this section shall be the version most recently approved by USEPA, ~~version~~ [Per USEPA suggestion via email, #6, 11/03/17.]

~~(F)~~ **Rule 442 Applicability**

~~Any Solvent, Solvent Cleaning activity, Solvent Cleaning unit operation, or Person, which is exempt from all or a portion of this rule except subsection (C)(6), shall be subject to the applicable requirements of the applicable Regulation XI source specific rule or Rule 442—Usage of Solvent.~~*[moved to (G)]*

~~(G)~~ **Exemptions**

- (1) ~~The provisions of this Rule shall not apply to:~~~~following Solvent Cleaning operations or activities are not subject to any provision of this rule:~~ *[changed for clarity as per Nicole Law, USEPA, recommendation, email dated 07/16/2018.]*
- ~~(a)~~ ~~Cleaning carried out in batch-loaded cold cleaners, open-top vapor degreasers, conveyorized degreasers, or film cleaning machines which are regulated under Rule 1122—Solvent Degreasers.~~*[Rule 1122 was moved to (F)(1)(ea)(iii) for ascending Rule order]*
- ~~(a)~~ Any source operation that is subject to or specifically exempted by any of the following:
- (i) Rule 1102 - Petroleum Solvent Dry Cleaners
- (ii) Rule 1113 – Architectural Coatings
- (iii) Rule 1122 – Solvent Degreasers *[moved from prior (G)(1)(a)]*
- (iv) Rule 1124 - Aerospace Assembly and Component Manufacturing Operations, except coating Application Equipment cleaning, and storage and disposal of VOC-containing materials used in Solvent Cleaning operations.
- (v) Rule 1141.1 – Coatings and Ink Manufacturing
- (vi) Rule 1151 – Motor Vehicle and Mobile Equipment Coating Operations
- (vii) Rule 1151.1 – Motor Vehicle Assembly Coating Operations
- (viii) Rule 1164 - Semiconductor Manufacturing.
- ~~(b)~~ ~~Cleaning operations subject to Rules 1102—Petroleum Solvent Dry Cleaners, and 1421—Control of Perchloroethylene Emissions from Dry Cleaning Operations~~ *[Rule 1102 is being moved to (a) for ascending rule order and Rule 1421 will be removed as an exempt rule in amended Rule 1171 as it is not SIP approved, per USEPA via email, #7, dated 11/03/2017]*
- ~~(c)~~ ~~Cleaning operations subject to Rule 1164—Semiconductor Manufacturing.~~*[moved to (h) for ascending Rule order]*
- ~~(d)~~ ~~Cleaning operations subject to Rule 1124—Aerospace Assembly and Component Manufacturing Operations, except coating Application Equipment cleaning, and storage and disposal of VOC-containing materials used in Solvent Cleaning operations.~~*[moved to (d) for ascending rule order]*

- ~~(e))~~ ~~—Cleaning operations subject to Rule 1141—Control of Volatile Organic Compound Emissions from Resin Manufacturing, and Rule 1141.1—Coatings and Ink Manufacturing. [Rule 1141 was rescinded 03/06/92 and Rule 1141.1 was moved to (e) for ascending Rule order]~~
- (fb) Janitorial ~~and Institutional cleaning~~ Cleaning, including graffiti removal. [Removed Institutional cleaning to address suggestion per USEPA via email 11/28/17 #1., as it includes “cleaning activities conducted at organizations, societies, or corporations...” which may provide a broader exemption than intended. “Cleaning” was erroneously deleted in rule version D1.]
- (gc) Stripping of Cured Coatings, Cured Adhesives, and Cured Inks.
- (hd) Cleaning operations using Solvents with a water content of 98% or more, by weight.
- (2) The provisions of subsection (C)(1)(a) shall not apply when carried out for any of the following applications:
- (a) Cleaning of solar cells, laser hardware, Scientific Instruments, and High Precision Optics.
- (b) Cleaning for: conducting performance laboratory tests on coatings, adhesives, or inks; research and development programs; and laboratory tests in quality assurance laboratories.
- (c) Cleaning of polycarbonate plastics.
- (d) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics. [Moved from original (G)(5)]
- (3) Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in subsection (C)(2)(a)(ii), are not subject to the provisions of subsection (D)(1).
- (4) Cleaning with Aerosol Products shall not be subject to the provisions of subsections (C)(1)(a) and (D)(1) if 160 fluid ounces or less of Aerosol Product are used per day, per Facility.
- ~~(5) —Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics shall not be subject to subsection (C)(1)(a). [Moved to (F)(2)(d) for consistency.]~~
- (65) Medical Device and pharmaceutical facilities may use up to 1.5 gallons per day of Solvents that are not in compliance with subsection (C)(1)(a).

- (76) The provisions of subsection (C)(1)(a)(iii) shall not apply to cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery product using less than 3 gallons per day of ethyl acetate averaged over a 30 calendar day period.

~~(7) Cleaning of application equipment used to apply coatings on satellites and radiation effect coatings shall not be subject to (C)(1)(a)(iii).. [Derived from SCAQMD Rule 1171, section (g)(5)(B), May 1, 2009 and SJVAPCD Rule 4663, section 4.6, amended September 20, 2007.] [This exemption is not necessary after further conversation with industry.]~~

- (87) The provisions of subsection (C)(1)(a)(iv) shall not apply to Persons or Facilities using less than 1.5 gallons per day of solvents to clean Sterilization Indicating Ink Application Equipment.

(FG) Rule 442 Applicability

Any Solvent, Solvent Cleaning activity, Solvent Cleaning unit operation, or Person, which is exempt from all or a portion of this rule except subsection ~~(C)(6)(D)~~, shall be subject to the applicable requirements of the applicable Regulation XI source specific rule or Rule 442 - *Usage of Solvent*.

~~{SIP: Submitted as amended 11/17/98 on _____; Submitted as amended 06/13/97 on _____; Approved 5/24/01, 66 FR 28666, 40 CFR 52.220(e)(262)(i)(e)(2); Approved 07/14/95, 60 FR 36230, 40 CFR 52.220(e)(222)(i)(A)(1); Approved 12/20/93, 58 FR 66285, 40 CFR 52.220(e)(188)(i)(e)(1)}~~

See SIP Table at www.avaqmd.ca.gov

Appendix “B”
Public Notice Documents

1. Proof of Publication – Antelope Valley Press 06/15/2018

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AFFIDAVIT OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles

} ss

The space above for filing stamp only

NOTICE OF HEARING SOLVENT CLEANING OPERATIONS

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the **Antelope Valley Press**, a newspaper of general circulation, printed and published daily in the City of Palmdale, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of October 24, 1931, Case Number 328601; Modified Case Number 657770 April 11, 1956; also operating as the **Ledger-Gazette**, adjudicated a legal newspaper June 15, 1927, by Superior Court decree No. 224545; also operating as the **Desert Mailer News**, formerly known as the **South Antelope Valley Foothill News**, adjudicated a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California on May 29, 1967, Case Number NOC564 and adjudicated a newspaper of general circulation for the City of Lancaster, State of California on January 26, 1990, Case Number NOC10714, Modified October 22, 1990; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

June 15, 2018

I certify (or declare) under penalty of perjury that
the fore-going is true and correct.



Signature

Dated: June 15, 2018
Executed at Palmdale, California

Valley Press

37404 SIERRA HWY., PALMDALE CA 93550
Telephone (661)267-4112/Fax (661)947-4870

NOTICE OF HEARING

NOTICE IS HEREBY GIVEN that the Governing Board of the Antelope Valley Air Quality Management District (AVAQMD) will conduct a public hearing on July 17, 2018 at 10:00 A.M. to consider the proposed amendment of Rule 1171 - Solvent Cleaning Operations.

SAID HEARING will be conducted in the Governing Board Chambers located at the AVAQMD offices, 43301 Division Street, Suite 206, Lancaster, CA 93535-4649 where all interested persons may be present and be heard. Copies of the proposed amendment of Rule 1171 - Solvent Cleaning Operations and the Staff Report are on file and may be obtained at the AVAQMD Office, at the above address. Written comments may be submitted to Bret Banks, Executive Officer/APCO at the above office address, and should be received no later than July 16, 2018 to be considered. If you have any questions, you may contact Barbara Lods at (661) 723-8070 x3 or via E-mail at blods@avaqmd.ca.gov for further information. Traducción este disponible por solicitud.

The proposed amendment of Rule 1171 - Solvent Cleaning Operations will satisfy 42 U.S.C. §17531a (Federal Clean Air Act §192) which requires that ozone non-attainment areas implement Reasonably Available Control Technology (RACT) for sources that are subject to Control Techniques Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for "major sources" of volatile organic compounds (VOCs) and oxides of nitrogen (NOx) which are ozone precursors.

The proposed amendments to Rule 1171 are necessary to enhance work practices, adjust categories for consistency with source specific rules, reduce VOC limits and address the alternative composite vapor pressure.

Pursuant to the California Environmental Quality Act (CEQA) the AVAQMD has determined that a Categorical Exemption (Class 8 - 14 Cal. Code Reg. 15309) applies and has prepared a Notice of Exemption for this action.

Deanna Hernandez
Senior Executive Analyst
Antelope Valley Air Quality Management District

Publish: June 15, 2018

AVAQMD

JUN 25 2018

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Appendix “C”

Public Comments and Responses

1. USEPA Comments on AV Rule 1171, July 16, 2018
2. USEPA Comments on AV Rule 1171, August 2, 2018
3. USEPA Legal Comments on AV Rule 1171, August 8, 2018

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Barbara Lods

From: Law, Nicole <Law.Nicole@epa.gov>
Sent: Monday, July 16, 2018 9:31 AM
To: Barbara Lods
Subject: EPA comments on Rule 1171 Solvent Cleaning Operations

Hi Barbara,

Thanks for the opportunity to comment on AVAQMD Rule 1171 Solvent Cleaning Operations as was attached to the staff report dated 05/31/2018. I noticed you addressed all our comments from the 9/28/2017 email, however, we have a few remaining comments on Rule 1171.

1. → • Section (B)(2) definition for Aerospace Vehicle or Components. This definition is inconsistent with the definition of section (B)(3) as it says, "Aircraft, including but not limited to...Space Vehicles." And the definition of Aircraft is, "Any machine designed to travel through the air, without leaving the earth's atmosphere..." We suggest the following edit, "Aircraft, ~~including but not limited to airplanes, helicopters, missiles,~~ or Space Vehicles. Including..." since definition of Aircraft already says "including airplanes, balloons, dirigibles, helicopters, and missiles."
2. → • Section (B)(10) definition for Exempt Compounds. This definition includes a reference to a very broad section of 40 CFR 51.100 (s) and would exempt all volatile compounds from the rule. We have discussed resolutions to this issue with the district on other district rules.
3. → • Section (F)(1) exempts solvent cleaning operations and activities subject to a list of rules. However, this language is not clear as it is meant that cleaning operations and activities subject to the rules is exempt. We suggest you precede each rule with "Activities and operations subject to..." Additionally, in section (F)(1)(i), "Janitorial" should be changed to "Janitorial Cleaning" to refer back to the definition. So the rule would read as follows:
 - The following Solvent Cleaning operations or activities are not subject to any provision of this rule:
 - Activities and operations subject to Rule 1102- Petroleum Solvent Dry Cleaners
 - Activities and operations subject to Rule 1113 Architectural Coatings
 - Activities and operations subject to rule 1122- Solvent Degreasers
 - (...)
 - Janitorial Cleaning, including graffiti removal.
 - Stripping of Cured Coatings, Cured Adhesives, and Cured inks.
 - Cleaning operations using Solvents with a water content of 98% or more, by weight.
4. → • A new exemption in section (F)(7) has been added for cleaning of application equipment used to apply coatings on satellites and radiation effect coatings. However, the district staff report has not described whether this rule change would constitute Clean Air Act 110(l) backsliding of the rule.

Please give me a call if you'd like to discuss. Thanks.

Nicole

Nicole Law
 Rules Office, Air Division
 U.S. EPA Region 9
 75 Hawthorne Street
 San Francisco, 94105
 Office: (415) 947-4126

District Response to USEPA Comment #1 dated 07/16/18
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1. Section (B)(2) definition for Aerospace Vehicle or Components was amended as suggested.
2. Section (B)(10) definition for Exempt Compounds was changed as per email thread between District Counsel Karen K. Nowak and USEPA Attorney Advisor, Douglas Bushey in email dated 07/17/2018.
3. Section (F)(1) has been changed for clarification.
4. The new exemption in Section (F)(7) has been removed.




2. USEPA Comment, 08/02/18

Barbara Lods

From: Schwartz, Robert <schwartz.robert@epa.gov>
Sent: Thursday, August 2, 2018 2:51 PM
To: Barbara Lods
Cc: Law, Nicole; Lo, Doris
Subject: Three minor comments on AV Rule 1171

Hi Barbara,

Thank you for taking our call this afternoon. To recap our call, there are three items I came across while reviewing the rule:

1.  1. Under the "Aircraft" definition on page 1, B3, we recommend modifying slightly to add "but not limited to", so as to be more inclusive of other aircraft, e.g. drones. Should read as "Aircraft" - Any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including, **but not limited to** airplanes, balloons, dirigibles, helicopters, and missiles."
2.  2. Under Requirements, C 1a, the far right table column with VOC limits is expressed in g/L and lb/gal. In section iii of the table, Aerospace Vehicle or Component, the limit of 200 is also stated in g/L again. We understand that it must also include the composite partial pressure limit (mmHg), but the addition of g/L may be redundant.
3.  3. On our track-changes version of the Rule (D2, 7-20-18) there appears to be some formatting issues on page 11 (3 aiii), page 14 (E 1 ai), and page 15 (E 1 di) of the Rule (they should be indented but they show up on our copy as far left-justified. I see that you've just sent over a Word version in which the formatting seems fine. When I open the PDF, I still see the formatting problem. So, it may have to do with a version of Adobe, etc. I guess it's something to be aware of in case you get similar comments in the future.

Thank you for taking these late comments.

Best Regards,
Robert

Robert Schwartz
Rules Office, Air Division
U.S. EPA, Region 9
75 Hawthorne St., San Francisco, CA 94105
(415) 972-3286

1. The District appreciates the recommendation to modify the “Aircraft” definition, but feels the current definition is all inclusive.
2. The formatting in the limit column for Aerospace Vehicle and Component in (C)(1)(a)(iii) has been modified for clarity.
3. Word version was re-sent at the request of Nicole Law to verify formatting was correct and somehow corrupt when converted to PDF. No change has been made.

3. USEPA Legal Comment, 08/08/18

From: Bushey, Douglas [mailto:bushey.douglas@epa.gov]
Sent: Wednesday, August 8, 2018 3:41 PM
To: Karen Nowak
Cc: Law, Nicole; Schwartz, Robert
Subject: RE: Exempt Compound definition wording

Hello Karen,

Thank you again for working with us on the Exempt Compound definition. Once I saw the new definition in context in the draft rule, another small issue occurred to me. As of now, in (B)(10) it refers to "Volatile Organic Compound". The term that is being defined in 51.100(s) is "Volatile organic compounds". The capitalization, combined with it not being plural may suggest a reference back to the definition in the rule itself. Apologies for not seeing this the first time, but given that we are hopefully coming up with a definition that will work in a number of rules, I thought that shooting for the maximum clarity this time would be a good goal. I am hopeful that it's not a challenge to make a minor edit like this at this point.

As always, please give a call if you'd like to discuss or have any other ideas regarding the phrasing.

Thanks,
Doug

Douglas Bushey
Attorney Adviser

1. The definition for “Exempt Compound” in subsection (B)(10) has been modified. The capitalization of “Volatile Organic Compound” has been changed to lowercase and the term has been made plural.

Appendix “D”
California Environmental Quality Act
Documentation

1. Notice of Exemption – Los Angeles County

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Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070

NOTICE OF EXEMPTION

AVAQMD

OCT 09 2018

TO: Los Angeles County Clerk
12400 E. Imperial Hwy, #1001
Norwalk, CA 90650

FROM: Antelope Valley
Air Quality Management District
43301 Division Street, Suite 206
Lancaster, CA 93535-4649

RECEIVED

X AVAQMD Senior Executive Analyst

PROJECT TITLE: Amendment of Rule 1171 – *Solvent Cleaning Operations*

PROJECT LOCATION – SPECIFIC: Los Angeles County portion of the Mojave Desert Air Basin.

PROJECT LOCATION – COUNTY: Los Angeles County

DESCRIPTION OF PROJECT: The proposed amendment of Rule 1171 – *Solvent Cleaning Operations* will satisfy 42 U.S.C. §§7511a (Federal Clean Air Act §182) which requires that ozone non-attainment areas implement Reasonably Available Control Technology (RACT) for sources that are subject to Control Techniques Guidelines (CTG) documents issued by United States Environmental Protection Agency (USEPA) and for “major sources” of volatile organic compounds (VOCs) and oxides of nitrogen (NOX) which are ozone precursors.

NAME OF PUBLIC AGENCY APPROVING PROJECT: Antelope Valley AQMD

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT: Antelope Valley AQMD

EXEMPT STATUS (CHECK ONE)

Ministerial (Pub. Res. Code §21080(b)(1); 14 Cal Code Reg. §15268)

Emergency Project (Pub. Res. Code §21080(b)(4); 14 Cal Code Reg. §15269(b))

X Categorical Exemption – Class 8 (14 Cal Code Reg. §15308)

REASONS WHY PROJECT IS EXEMPT: The proposed amendments to Rule 1171 are exempt from CEQA review because they will not create any adverse impacts on the environment. This rule has been strengthened by enhancing work practices, adjusting categories for consistency with source specific rules, reducing VOC limits and addressing the alternative composite vapor pressure. Because there is no potential that the amendments might cause the release of additional air contaminants or create any adverse environmental impacts, a Class 8 categorical exemption (14 Cal. Code Reg. §15308) applies. Copies of the documents relating to CEQA can be found in Appendix “D”.

LEAD AGENCY CONTACT PERSON: Bret Banks **PHONE:** (661) 723-8070

SIGNATURE: 

TITLE: Executive Director **DATE:** August 21, 2018

DATE RECEIVED FOR FILING:



Donna C. Lopez, Registrar - Recorder/County Clerk

Electronically signed by MAXINE CARRASCO

THIS NOTICE WAS POSTED

ON September 04 2018

UNTIL October 04 2018

REGISTRAR – RECORDER/COUNTY CLERK

Printed on recycled paper

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Appendix “E”

Bibliography

The following documents were consulted in the preparation of this staff report.

1. *Control Techniques Guidelines: Industrial Cleaning Solvents*, (EPA 453/R-06-001 September 2006).
2. Yolo-Solano AQMD Rule 2.31 – *Solvent Cleaning and Degreasing*, Revised May 8, 2013.
3. SJVUAPCD Rule 4663 – *Organic Solvent Cleaning, Storage, and Disposal*, Amended September 20, 2007.
4. SCAQMD Rule 1171 – *Solvent Cleaning Operations*, Amended February 1, 2008.

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